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**THREE-PHASE RESEARCH ON SPA NATURAL AND
ORGANIC SPA SKIN CARE LABEL EVALUATING AND
PERCEPTION BY CONSUMER**

Master's Thesis

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Recommendation for permission to defend thesis

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I have written the Master's thesis independently.

All works and major viewpoints of the other authors, data from other sources of literature and elsewhere used for writing this paper have been referenced.

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INTRODUCTION

Natural and organic cosmetic industry in both spas and retail stores is fast growing and flourishing in the last years, many manufacturers are starting to use organic and/or natural ingredients in their production. Skin care and cosmetic industry manufacturers can be tricky with their advertising claims and use misleading words for consumer ears and eyes, such as “contains natural and/or organic ingredients”, “organic and natural”, “herbal”, “no chemical additives and preservatives are used”, therefore consumers have to watch out for the worst chemical offenses in the realm of cosmetics (Csorba, 2010). The best defence against harmful skin care and cosmetics is to pay attention to the label and certification of the products.

The aim of this thesis is to research if spa skin care labels are easily understandable for the average consumer and the outcome of the thesis is lead by the aim to give recommendations for the spa skin care product manufacturers how to improve spa skin care labels that they will be easily understandable and therefore may lead to the consumer positive purchase decision.

In order to achieve this goal, the author undertook a 3-phase comparative research on 10 natural and/or organic skin care products, used or sold in natural and/or organic spas. The main focus of research was on:

- companies or manufacturers natural and organic skin care marketing messages
- spa organic and natural skin care labels and research on their ingredients,
- consumer questionnaire survey to understand their attitude and knowledge regarding labelling, certification and ingredients of spa cosmetics.

The Internet, the trade press and medical scientific studies will be an important supplementary source of knowledge on ingredients and certification in the global spa skin care industry.

Key words: natural, organic, green marketing, labels, ingredients, certification.

1. THEORETICAL FRAME

The aim of this section is to build up a theoretical frame of references regarding spa skin care industry, green marketing, the labelling rules, certification requirements and ingredients. This chapter is organized as follows: 1.1. Skin care industry relation to wellness, 1.2. Green and “green” marketing, 1.3. Labelling requirements and certification logos, 1.4. Ingredients, 1.5. Impact.

1.1 Skin care industry relation to wellness

Nowadays, spas are seen as part of holistic wellness lifestyle and the focus of relaxation and relief of stress and body tense. Spas around the world provide customers lots of different types of massages, treatments and experiences with or without additional use of natural, chemical, herbal, and cosmeceutical skin care.

The word wellness indicates a healthy balance of mind, body and spirit through several of its dimensions, such as physical, mental, social, sexual, emotional, cultural, spiritual, educational, occupational, financial, environmental, ethical and existential wellness (Cohen, 2008), which results in an overall feeling of wellbeing and greater quality of life.

Presence of wellbeing in peoples’ minds has its roots in 19th century, when the middle class in the industrialized world found time and resources for different forms of self-improvement. Overall wellness became popular in the 1970s’, but in the 1990s’ reached its highest point and until the present time remained as a goal for more and more people. The National Institute of Wellness in Wisconsin defines the term ‘wellness’ as “an active process of becoming aware and making choices toward a more successful existence”. Also wellness is described as “constant, conscious pursuit of living to its fullest potential” (Zimmer, 2010).

Wellness includes many health related disciplines, such as physical exercise, healthy and balanced diet, as well as therapy with natural products. Wellness focuses on minimizing

the effects of the three dimensions of stress: physical stress (which causes irritation to the nervous system), chemical stress (which causes toxicity of the body) and mental stress (which can trigger hormonal changes, mainly in the adrenal glands). It may be noted that the definition of wellness vary depending on who promote it. These wellness promoters try to ensure a healthier population and a higher quality of life with a healthy, balanced lifestyle. Wellness as an alternative concept generally means more than the absence of disease - an optimal state of health. Supporters of wellness lifestyle believe that many factors contribute to wellness: living in a clean environment, eating organic food, doing regular physical exercise, balance career, family, relationships, and the development of faith (Cherry, 2006).

There is significant increase in sales of natural and organic skin care worldwide in retail stores and spas. In 2013 in the UK, the Soil Association calculated that sales of certified organic and beauty products increased by 5.6% (Organic market report, 2013), and is expected that global overall market annual growth rate will reach almost 10% through 2016. Indeed, natural personal care products remains strong, and even maintaining high growth rates in the Western European and North American markets and still outperformed the overall beauty market. The dynamics of the natural skin care market varies significantly between different parts of Europe, for instance, the natural segment is more mainstream in Western Europe comparing with more opportunistic market Central and Eastern Europe. As well Kline's report shows, that European and American shares of total natural beauty market decreased comparing with Brazil and China share (Parsippany, 2012).

What are cosmetics in general and what is their purpose? Definition of cosmetics is clearly stated by EU and USA legislation. Washington law defines the term "cosmetics" as: "articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and articles intended for use as a component of any such article; except that such term shall not include soap". This term includes lotions, salves, lip balms, skin creams, and shampoos, except soap, due the reason that it made primarily from an alkali salt or fatty acid and in case if it not labelled with a

claim other than cleansing of the human body (Intrastate Commerce in food, drugs, and cosmetics, 2013).

European Union directive 93/95/EEC defines a cosmetic product as “any substance or mixture intended to be placed in contact with the various external parts of the human body (epidermis, hair system, nails, lips and external genital organs) or with the teeth and the mucous membranes of the oral cavity with a view exclusively or mainly to cleaning them, perfuming them, changing their appearance and/or correcting body odours and/or protecting them or keeping them in good condition”. In other words, the cosmetic product contains ingredients according to the Cosmetic Directive and the Cosmetic Products Safety Regulations with the main purpose of cleaning, perfuming, changing appearance, correcting body odour, protecting, and keeping in good condition, and is applied to epidermis (upper skin layer), hair system, nails, lips, external genital organs, teeth, mucous membrane of the oral cavity (Definition of Cosmetics, 2013). This definition applies to all cosmetic products, be they sold in shops, through vending machines, by mail order, via the internet, applied by professionals, made available in hotels, spas etc.

Definition of general cosmetics is clear enough, but there is a lack of official and valid definition and regulation concerning the natural, ecological or organic skin care. Many classifications are taken from the food and agriculture industries, which are more advanced in their definitions of organic and natural (Cohen, 2008). Even Cosmetic Directive 76/768/ECC does not define term of natural or organic cosmetics, there is no doubt that such a products must fulfil Directive requirements.

Ingredients for natural cosmetics are derived from plants, a small amount of animal-derived components is allowed to be used, and permitted percentage of additional components is higher than in organic skin care products.

Organic cosmetics must meet more strict requirements: during their production the use of components of animal origin is not acceptable, the percentage of additional substances shall not exceed 5%, severe restrictions also apply to raw materials, water and environmental protection. Plants for the production of cosmetics should be grown in an ecologically clean place (on plantations or in the wild), and the use of chemicals is prohibited in their cultivation. The processing plant must also comply with environmental

standards and shall not include the steps of chemical synthesis, as well as the use of components as a source of genetically modified plants. Cosmetics shall not contain animal products, with the exception if only ingredients extracted without violence against animals. The use of organic- synthetic dyes and synthetic fragrances is prohibited as well. Such skin care products shall not be tested on animals, and the process of its production and packaging materials must comply with environmental regulations and not to violate the eco - balance of the environment.

Due to the more and more frequent use of term of “natural” in cosmetic industry for a product with some amount of artificial and synthetic ingredients, the Committee of Experts on Cosmetic Products at Public Health Committee of Council Europe in year 2000 developed the guidelines for manufacturing, marketing and labelling of natural cosmetics (cosmetics with natural origin – plant, animal or mineral) with the aim of unification of the term and production principles. Although these guidelines are created, they are not bound by law.

1.2 Companies green and “green” marketing

Green marketing is aiming to create awareness about the environmental issues and help consumers to understand how they can contribute to the environment (J. Cherian, J. Jacob, 2012), in comparison to traditional marketing which focuses more on maximizing the consumer’s individual welfare, and pays less or even no attention to the environmental problems (Russell DW, Russell CA, 2010). When customers are provided with information of the environmental effect of the products, then they will choose to take this information into account or not, when deciding which product to purchase. And this is the reason why companies more inclined to produce products that are better from an environmental point of view (Rex, E. Baumann, H, 2007).

The term green product is defined by the Sustainability Learning Centre as a product that: is made with recycled waste content; contain natural resources; avoids toxic emissions; saves energy or water; contributes to a safe, healthy built environment. The term green is used as an expression for products that are environmentally beneficial comparing to conventional products, and combines terms such an ecological, organic and natural and refers not only for contents of green products, but for packaging as well. Pre- and post-

consumer material which is used to create packaging or where ingredients are packed before being processed in order to create the product should be recyclable too. These materials contain natural resources and therefore the product or waste will degrade faster than counterparts with unnatural ingredients. Green products need to avoid the hazard of toxic emissions by reducing, for instance, the amount of pesticides used or chemicals that deplete the ozone layer. And if the total product is following these instructions, contribute to a safer environment and are considered green. (What makes a product Green?, 2014) Green cosmetics are beneficial due to the absence of toxic chemicals or synthetic substances, or their low content.

Green marketing contains the same 4 P's of traditional marketing: product, promotion, price and place. Green product is the cornerstone of the marketing mix, and people more and more realize that its consumption activities lead to environmental problems and therefore some consumers are translating their environmental concern into actively purchasing green products. (Peattie, 1995) The emergence of new green products has been one of the main areas of activity in response to the green challenge. As per Peattie (1995), in order to make product considered green in has to include many activities. The purchase process should involve the consumer guides and staff-force in order to be able to convince the consumer that every purchase is a support for the protection activities toward the environment and supply them with sufficient information of the product, including its eco-performance and the other social benefits that the consumer perceives it would have such as being environmentally safe. (D'Souza, C., Taghian, M et al, 2006) And it is necessary to admit that it may reflect consumers' concern for products being tested on animals and those that are potentially harmful to wildlife and it became a major marketing strategy in the product development and a major marketing differentiation strategy communicated to the end-user. According to Peattie (1995), consumer perception of a product's greenness is influenced by the content of product, including the quantity, sustainability, efficiency and safety of the raw materials and energy that go into a product, together with the social acceptability of the conditions under which human resources contribute to production; the consequences of product use and misuse, which is consumer information about hazards relating to the products, the usage in accordance with label recommendations, insistence on handling, use and disposal information, product durability which is important consideration for consumers, both environmentally and economically, as well as proactive

and responsible approach to the safe product disposal and the product origin, where 'locally made' is gaining strength as a mark of excellence, possibly as a reaction against the delocalized economy.

There is no significant difference in green promotion and communication comparing with traditional promotion. But there are three aims of green advertising: to inform the target consumers about the company with general statement of corporate concern for the environment, specific environmentally-related activities and commitment to environmental improvement and product, so that they become aware of a new green product, how it works and what its environmental and other advantages are: to persuade consumers to switch to a green brand, to change their preconceptions about a product, or even to find out more about it, perhaps by sending for a brochure; to remind customers that they will need a product soon, and to emphasize where and how it can be purchased. Environmentally-related activities from company side generally fall into monetary contributions to environmental groups and activities, working with others to create opportunities for environmental improvement, for example the preservation and maintenance of wildlife, especially endangered species, and wildlife habitats or providing time and manpower support for environmentally-related activities or development of/support for environmental educational programs, as well as educating the customers through marketing communications and advertising, although at this moment advertising's effectiveness is usually based on short bursts of information containing a simple message which demonstrates the product and its benefits, but the well-designed advertising can succeed in informing consumers about environmental issues, however, and can help to raise awareness and improve understanding.

Green price, according to Ken Peattie (1995), can be considered as a reflection of the cost of production, particularly when companies price their products by standard cost or cost-plus-profit methods, a key variable in the pursuit of profit, a signal of quality to consumers, a basis for market segmentation, with different prices paid for the same product in different market segments, a measure of a product's worth which allows different forms of product to be compared and considered, a reflection of the demand that exists for a product and the available supply, an important basis for competition, a key marketing variable that can be manipulated to achieve a wide variety of marketing objectives. Many consumers and many

companies make purchase on the basis of a product's price, which is opposite to the total cost of owning and using the product, and highly priced product in order to cover the costs of being truly sustainable would be unable to compete unless customer price sensitivity was very low, said by Peattie (1995). And the choice for green consumer is to buy or not a product which costs more, but will last longer or is cheaper to run. It is necessary to admit that if social and environmental protection measures cost extra money, this can be passed on to the consumer, making it clear that the price differential is a result of such improvements, and therefore consumers need to be educated to realize that paying a little more for a green product is worthy and make them willing to pay.

The green distribution channel is an issue of strategic importance and in order to be successful any new green product has to gain access to potential customers through a suitable distribution channel. The channels of distribution that a company uses can be viewed from a physical, which is movement of goods by road, or see the physical impact of distribution in terms of the shops, warehouses and car parks that dot the landscape, and from an economic perspective, which is concerned with developing and managing a channel structure. For example, developing a credible green distribution strategy goes beyond improving the practicalities of fuel efficiency, shipping packaging and the noise produced by depots may affect the eco-performance of companies. (Peattie, 1995)

It is important for green companies to create sustainable relationship with all who they interact with: its suppliers, market intermediaries, the public and their customers (Ravald A, Gronroos C, 1996). Green marketing from companies is growing which has to do with the increased environmental awareness among law makers, environmental groups and consumers. Also an increasing number of national and international environmental schemes, laws and regulations have been established. In addition, the taxes and penalties on emissions has contributed to enforcing this trend and led to the companies' decisions to consume fewer resources and emit fewer pollutants. Nowadays being green company is a competitive advantage, and demand for such a companies' production is high, therefore also traditional companies are changing their strategies to green marketing direction.

There are three definitions for green marketing which is focusing on main target group called green consumers: retailing definition "*The marketing of products that are presumed to be environmentally safe*"; social marketing definition "*The development and marketing*

of products designed to minimize negative effects on the physical environment or to improve its quality; environmental definition “The efforts by organizations to produce, promote, package, and reclaim products in a manner that is sensitive or responsive to ecological concerns”. (Dictionary definition Green marketing, 2014)

Although the awareness about organic cosmetic products is increasing and the consumer becomes more knowledgeable about the benefits. But as it was mentioned above, due to the reason of absence of exact rules according to national cosmetic regulations of what amount of natural ingredients a product has to contain to be labelled and retailed as natural, the actual benefits of green and natural cosmetics remain unclear, because the amount of natural ingredients differs from product to product. And usually the marketing puts emphasis on ingredients that are not in the product which is usually shown to be free from silicone, alcohol, parabens, artificial colorants and fragrances. (Naturligt? Värderingar eller vetande – En granskning av naturkosmetik, 2009)

As it was mentioned above, cosmetic industry manufacturers can be tricky with their advertising claims and use precious words for consumer ears and eyes, such as “contains natural and/or organic ingredients”, “organic and natural”, “herbal”, “no chemical additives and preservatives are used” (Csorba, 2010). The question is what is the reason for these advertising claims? Successful green industrial marketing is a key channel of communication with customers and increase in selling the products. But to support a green marketing, it is needed to answer the questions customers might have concerning environmental performance and regarding the nature of ingredients. In case of green companies, their products marketing is successful due to implementing green strategies from the company establishing moment, and for traditional companies who has successful business for years and they were established long time ago before green thinking started to flourish, it is time and money consuming changes. Therefore while implementing slowly new strategies, advertising and claims from such a companies’ is usually based on short bursts of information focusing on fewer natural ingredients and recently implemented environmental changes. Therefore consumers have to make sure and to watch out for the worst chemical offenses in the realm of cosmetics (Csorba, 2010).

1.3 Label information requirements and certification logos

As it was mentioned earlier, the best defence against harmful skin care and cosmetics is to pay attention to the label of the products. Most of cosmetic labels, defined as natural and/or organic by their manufacturers are unclear, and this is leading to consumer confusion in buying decision making (Zaman U.A. et al, 2010). By the requirements of Directive 76/768/EC guidelines, the labels of cosmetic products contain a mix of advertising information, statements and ingredients included. It is compulsory that product packaging contains:

- The name and address of the manufacturer or of the entity responsible for putting the product on the market (importer or distributor)
- The amount of product contained by volume or weight (except for packages containing fewer than five grams or less than five millilitres)
- The minimum product use-by date (expiration date). If longer than 30 months, the date is not required
- Any special precautions for use
- The manufacturing batch number or a reference to enable identification
- The product's purpose
- A list of ingredients by descending order of weight in INCI nomenclature (International Nomenclature Cosmetic Ingredients). This nomenclature is a mix of very technical terms, in English and Latin. Although it is not always easy for consumers to understand, it does make the work of physicians and allergists easier. (Fair and sustainable cosmetics, 2011)
- Certification label or logo, if any.

If details of the manufacturer, the amount of product, expiration date, precautions for use, batch number and product purpose are specific to each skin care product, then certification logos should be widely and officially accepted.

There are many certification bodies in the world, which are successfully investigating manufacturing processes, and approving natural and organic base of cosmetics and issuing certification to the manufacturers. Their requirements and procedures are similar, but there are differences in what can be labelled as natural or organic skin care and what contents must be and in what quantity. These rules will define requirements such as:

- The minimum percentage of organic content required within a product;
- The percentage of synthetic ingredients acceptable under certification;
- Ingredients that are excluded from use in products;
- The manufacturing processes which can be used in the creation of ingredients and the end product;
- Whether water can or cannot be included in the calculation for the organic percentage of the product.

Part of the requirements also include the regular auditing by a third-party organic certifier of both the manufacturers ingredients and processes to ensure it is compliant with all the rules of the certification standard. There are a few general guidelines which apply to most certifications such as no animal testing; no ingredients derived from an animal unless produced without harm to the animal e.g. honey and beeswax; avoidance of GM ingredients; consideration for how the ingredients are grown and harvested; environmentally friendly packaging requirements.

Major certification organisations and their standards (Wuttke, 2011):



EcoCert (France) – private organization. Certification Type: Natural and Natural / Organic. EcoCert requires a minimum of 95% natural origin as a baseline entry and a minimum of 5% organic content for the “Natural” standard and a minimum of 10% organic content for the “Natural / Organic ” standard. Up to 5% of ingredients can be synthetic. Limited synthetic preservatives are allowed. Water can be included in its calculation of organic content.



BDIH (Germany) – private organisation. Certification Type: Natural BDIH requires 100% natural origin / nature identical to gain the “natural” standard. The "Certified Natural Cosmetics" seal confirms the use of natural raw material such as plant oils, fats and waxes, herbal extracts and essential oils and aromatic materials. They must be obtained from controlled biological cultivation or controlled biological wild collection (BDIH Guidelines for Certified Natural Cosmetics). There is a lack of precise requirements concerning the percentage content of natural substances and certified organic ingredients only. Does not have a standard for organic certification.



Soil Association (UK) – Non-profit. Certification Type: Organic, and made with Organic ingredients. Soil Association is a standard for organic and made with organic ingredients. “Organic” must contain at least 95 percent organically produced ingredients. “Made with Organic Ingredients” must contain at least 70 percent organic ingredients. Limited amounts of synthetic preservatives and ingredients are allowed. Excludes water in calculation of organic content.



COSMOS (Brussels) – Non-profit. Certification Type: Organic and Natural. COSMOS is a cosmetic standard for organic and natural ingredients. “Organic” must contain at least 95% organically produced ingredients. “Natural” may contain natural/organic ingredients, but does not allow active marketing of organic content. Limited synthetics are allowed in the “Organic” and “Natural” standard for some product types. Excludes minerals in calculation of organic content.



NPA (USA) – Non-profit. Certification Type: Natural NPA requires a minimum of 95% natural origin for the “Natural” standard. Limited amounts of synthetics are allowed. Does not have a standard for organic certification.



USDA (USA) – Governmental body. Certification Type: 100% Organic, Organic, and Made with Organic. USDA NOP is a food standard for organic and made with organic ingredients. “100% organic” must contain only organically produced ingredients. “Organic” must contain at least 95 percent organically produced ingredients. “Made with Organic Ingredients” must contain at least 70 percent organic ingredients. Limited amounts of synthetics are allowed in the “Organic” and “Made with Organic” standard. Excludes water and salt in calculation of organic content.



NaTrue (Brussels) – Non-profit. Certification Type: Natural, Organic, and Natural with organic portion. NATRUE is a cosmetic standard that requires 100 percent certified pure natural and derived natural (natural origin), plus some limited nature-identical* as a baseline for entry as

“Natural Cosmetics”. “Organic cosmetics” guarantees at least 95 percent of the natural ingredients stem from controlled organic production. “Natural with organic portion” guarantees at least 70 percent of the natural ingredients stem from organic production. Excludes water and salt in calculation of natural and organic content. NATRUE has an equivalency agreement/recognition with NSF/ANSI 305.



NSF/ANSI 305 (USA) – Non-profit organisation. Certification Type: Contains Organic. NSF ANSI 305 standard requires 70 percent organic ingredients to comply with the “contains organic” standard. Limited amounts of synthetics are allowed. Excludes water and salt in calculation of organic content.



Certeck (Canada) – Private business. Certification Type: Natural or Organic. A minimum of 95% of the ingredients must be of natural origin. Products that obtain certification as organic must also use certified organic ingredients. Packaging must be recyclable and the products and their individual ingredients must not have been tested on animals, must be virtually free of synthetic ingredients, and must not contain pesticides, harmful preservatives, artificial colours and fragrances (IOS Cosmetics Standard 2008).

Certification label or logo informs the consumer on the type of production and ingredient pattern, as well as environmental sustainability (Rahbar, E., & Wahid, N.A., 2011) (Sherman, 2012), and are influencing their purchase decision making. Overall there are three main categories in natural cosmetics used or offered in spas: sustainable, organic and natural (Korink I. , 2013), but several types of certification logos, which point out the content of chosen items. Sustainable logos consider the whole life cycle of a product and the natural and organic ingredients, for instance this kind of logos EcoCert and BDIH. The organic labels, such as Certified Organic from the United States Department of Agriculture (USDA), have standards for evaluating the environmental influence of the ingredients of a product. Furthermore the natural labels, such as NaTrue, look at the renewable sources (Golden, 2010). As per Korink, labels brilliantly divided into mandatory and voluntary (Korink I. , 2013). Mandatory labels are developed by governmental organisations, such as the European Union, and are prescribed by law (Horne, 2009). Voluntary labelling can be divided into three different categories; type I, type II and type III labels (Horne, 2009)

- Type I labels are certified by third parties and are used within one country or region. These labels can be recognized by using simple symbols. Most consumers think these labels are very clear and that they provide a lot of information at the point of sale.
- Type II labels are not officially certified, but are based on self-declarations of retailers or manufacturers and for that reason can be seen as a way of advertising. Most of the time, these labels are not scientifically based and for that reason they are often quite unclear for consumers.
- Type III labels provide qualitative information behind the environmental symbols and about the life cycle of a product in a very extensive format. The type III labels are used less compared to type II and type I labels (Horne, 2009)

Manufacturers and consumers use certification and/or eco-labels for different purposes. For consumers it is more information about the product profile and the effects on the environment, and therefore by using eco-labels, environmentally friendly consumption behaviour is stimulated. For manufacturers it is motivation to constrain the environmental impact of their products (Gallastegui, 2002). The important factors, which are influencing the effect of a certification logo on purchase behaviour are the way ecological information is presented and the ability of the consumer to read ecological information and understand a certification logo, as well as trust in a label and recognition by paying attention to a label (Thøgersen, 2010), (Teisl, 2008). The successful certification logo catches the attention of the consumers and when they have sufficient knowledge about design and the meaning of logo, this will lead to the positive purchase decision. Although it is necessary to admit that consumers have problems in understanding the information stated and in distinguishing between the meaning of the different logos, which means that consumer needs to be educated beforehand about certification logos and their meaning. (Nguyen, 2010) More information about eco-labels can result in higher knowledge of eco-labelled products among consumers in a way the purchase decision will be influenced (Gracia, 2008). Consumer, who has knowledge about certification logo and aware on influence on health and environmental influence, will seek for certification and eco-label more likely than the consumer who does not value the protecting environment. (Kim, 2011); (Thøgersen, 2010)

1.4 Natural skin care product ingredients

Whatever their purpose, cosmetic products are all made from three main categories of ingredients (see Tab.1):

- Active ingredients, which have a therapeutic, repairing, calming or other effect (essential oils, Aloe Vera, etc.)
- Additives, which are used by formulators to modify the appearance of a product or to correct certain unwanted effects (perfumes, preservatives, colouring, antioxidants)
- Excipients, which give the finished product the desired consistency and enable application of the active ingredient (water, oil, alcohol, etc.)

Tab. 1 Skin care product synthetic vs. organic ingredients (created by author using EWG's SkinDeep® skin care ingredient data base (Skindeep, 2014))

Component	Use	Synthetic	Organic
Surfactants (surface active agents)	A mandatory component of emulsions and some other forms. These substances act as emulsifiers and stabilizers, thanks to them the oil-water mixture does not separate into two immiscible layers, and there is a suspension. Also used in the composition of detergents, since embedding into the surface of the grease on the skin and hair, "crushed" and loosen them, which facilitates their removal.	Sodium lauryl (laureth) sulphate, ammonium lauryl (laureth) sulphate, sodium methyl laurate, sodium lauryl (cocoyl) sarcosinate, cocamidopropyl betaine, TEA, DEA, PEG (polyethylene glycol), Quaternium – 7,15,31..., lauryl (cocoyl) sarcosine, disodium oleamide and so on..	Plant saponins (soap tree extracts, soapwort, yucca), milk proteins, soy, chitosan, red algae, xanthan gum, phospholipids (eg, soy lecithin)
Preservatives	Protect the product from damage		
Antioxidants	Prevent oxidation of components	Propylparaben, butylparaben, methylparaben, ethylparaben, isolidinyl urea, imidasolidinyl urea	For the oil phase: Vitamin E To the aqueous phase: vitamin C, vegetable polyphenols
Antimicrobial and antifungal agents	Inhibit the growth of micro flora and destroys bacteria and fungi	Propylparaben, butylparaben, methylparaben, ethylparaben, isolidinyl urea, imidasolidinyl urea	Essential oils of tea tree, thyme, eucalyptus, rosemary, peppermint, citrus fruits (lemon, lime, grapefruit). Glycerol (for products with an aqueous base)
Emollients	Perform two main functions: soften the top layer of the skin and protect (including preventing transepidermal water evaporation)	PEG-compounds, synthetic alcohols (benzyl-, butyl-, cetearyl-, cetyl-, glyceryl-, isopropyl-, myristyl-, propyl-, propylene-, stearyl-), hydrocarbon oils (mineral oil, petrolatum, paraffin), polycyclic aromatic hydrocarbons, silicone oils	Shea butter, cocoa, palm oil, jojoba oil, avocado, macadamia, olive, peach, vegetable wax. Rejuvenating cosmetics contains in its structure and carrot sesame oil, grape seed oil and wheat germ
Moisturizing ingredients	Moisturize the stratum corneum: increase the level of hydration, creating a mechanical obstacle to the evaporation of water (surface moisture), as well as increasing the water content in the stratum corneum (deep moisturizing)	Glycols (propylene glycol, ethylene glycol, diethylene glycol), processed oil (petrolatum, mineral oil, paraffin)	Free amino acids, urea, lactic acid, vegetable oil containing lipids, occlusive oils (Shih, cocoa), macromolecular proteins and plant polysaccharides

Restrictions, what are set in the rules of production of skin-care products certainly creating some difficulties for manufacturer. Besides pharmacological and therapeutic usefulness of including one or another ingredient in the formulation, there is also the technical side - the product should be stable until the expiration date. Responsible for the stability of the product items included in the base, such as emulsifiers, stabilizers, preservatives, antioxidants.

The manufacturer's task is to create and offer to consumers, healthy products that meet hygiene and health requirements, as well as to provide detailed information on their manufacturing methods and on results from toxicological studies and controls carried out before a new product can be put on the market. The main European Union regulatory trends relate to prohibitions against animal testing and European Directive 76/768 sets out the rules defining the composition of cosmetic products and provides a detailed list of components (ingredients and colouring) that are prohibited, temporarily admissible or restricted. Restricted substances are limited to one or several fields of application and to a maximum authorised amount. To date, over 1,500 substances have been prohibited in the manufacturing of cosmetics. (Fair and sustainable cosmetics, 2011)

1.5 Chemical ingredients impact

As in general law, the ingredients of natural cosmetics should not cause any damage to human health (Siekierski, 2008). In case of spas, a huge choice of spa beauty cosmetics and skin care products are offered to the consumer in order to continue the positive effect of spa therapy or treatment. When considering using these items or services, it is important for consumers to understand the health risks and sustainability of using them. Spa skin care helps to develop a desired look, however, some of them can contain chemicals or synthetics that could be harmful to the skin. Chemicals in skin care products are linked to disorders such as dermatoid allergies, cancer and even birth defects, if used long-term. The use of parabens, heavy metals and toxic chemicals could have harmful effects on human bodies which will not be revealed in the near future. And it is according to the federal laws enforced by the Food and Drug Administration for cosmetic companies to ensure the safety of their products (Vincent, 2012).

The reason of harm to human body is simple - skin is the largest organ of body, and some amount of topical skin applications may go straight into the blood system, therefore it is important to know exactly what is applied on it and how it will affect not only skin, but whole body system. Until the beginning of the 20th century, it was believed that skin is completely inert and impermeable to chemicals. Partly it is a truth, because the skin does act as barrier, but at the same time is not a complete barrier. Penetration of chemicals, intentional or unintentional, does occur. And as it was mentioned above, due to the large surface area, which is approximately 1.8m² for a 70kg heavy person, the skin may be a significant and even major route of entry into the body in some exposure situations, and when the skin is in poor condition and barrier function is disrupted, penetration and permeation of chemicals can have very serious impacts on overall human health. (ILO, UNEP , 2006)

Cosmetics all over the world may contain lots of chemical ingredients, which may show short term positive effect on the appearance of skin, but may result in the organism's long term misbalance. This kind of chemicals is not healthy for the consumers and for the environment. Kline's report shows the growth of natural personal cosmetics customer awareness of health, environmental, and sustainability concerns. In Western Europe, consumers have a higher awareness and interest concerning product ingredients, business ethics, and sustainability practices comparing with Eastern Europe, where consumer interest and awareness is starting to blossom (Parsippany, 2012).

The impact of parabens, heavy metals and toxic chemicals can affect not only female population, but male population as well, due the reason of increasing cosmetics and toiletries, such as skin and hair care products, face cleansers and shaving products, consumption by men in the last years and may lead to infertility and prostate cancer. Some of men's skincare products, such as deodorants, aftershave and shaving cream, contain toxic chemicals with links to cancer, sperm damage, and other health damage as per report by Environmental Defence, where results from Analytical Sciences Laboratories in California are described (Toxic chemicals found in men's grooming products, 2012).

In the 1990s, due to growing awareness of synthetic skincare negative impact on health, wellbeing, and on environment, consumer are becoming more interested in purchasing

skincare derived from pure and natural ingredients. Natural and organic cosmetics and spa cosmetics are known as beneficial due to low use, or no use of toxic chemicals, synthetic substances. Therefore the natural and organic cosmetic industry in both spas and retail stores is fast growing and flourishing in the last years. Because of this reason many manufacturers are starting to use organic and/or natural ingredients in their production and there are many reasons why. Some extensive research reveals carcinogenic or even harmful properties of synthetic cosmetic ingredients, which can worsen the consumer's health and the rise of environmental concerns and growing awareness about sustaining resources.

As it was mentioned above, due to a lack of official and valid definition and regulation concerning the natural, ecological or organic skin care, a misunderstanding is created among consumers, and even manufacturers (What Natural and Organic Brands are Making the Grade?, 2011). Unfortunately, a large number of companies and manufacturers are marketing their production as 'natural', 'pure', 'botanical', 'fresh and clean' and then, purest of all, 'organic' (Certified Organic Skincare & Cosmetic Labelling in Australia, 2010) In order to protect themselves, consumers have to make sure and to watch out for the worst chemical offenses in the realm of cosmetics (Csorba, 2010).

In the article about toxic chemicals (Toxic chemicals found in men's grooming products, 2012), the certified laboratory with specialization on environmental testing and analytical chemistry, tested for some common toxic ingredients that do not appear on labels: phthalates (some are labelled, but they're also hidden in fragrance), 1,4-dioxane, and artificial musks. The effect of phthalate is disrupting male hormones, which is affecting fertility and linked to testicular cancer. 1,4-dioxane has been classified as a probable human carcinogen and some artificial musks have been shown to disrupt hormones in animals. The results showed four products that contained probable human carcinogens, five that had chemicals known to harm male reproductive health, and 10 with artificial musks. Although they found in small amount, the regular usage can create long-term effects, and unfortunately, these effects are unknown. Even not interested in skincare ingredient reading consumer most likely heard that the use of parabens, phthalates and fragrance is restricted and even prohibited and must to appear in skincare ingredient list. Unfortunately, in case of fragrances due to industry trade secrets it is exempt for the petition to list all

ingredients, including phthalates. (Toxic chemicals found in men's grooming products, 2012)

2 METHODOLOGY

It is challenging to undertake research on understanding spa cosmetics labels, marketed as natural and organic. This chapter will give detailed information on approach and collection of information used in the thesis. The aim of this chapter is to discuss the relationship between the theoretical and practical part of research, as well as present the key findings.

2.1 Scope of research

This topic was chosen because of a high interest in organic and natural skin care industry for the author, as well as it being a global and growing trend. In public articles and scientific research there is great amount of local and global information about natural or organic cosmetics, labelling, and certification labels or logos, customer attitudes towards sustainable, organic and natural cosmetics. Therefore, the purpose of this thesis is identified and is focused on understanding spa skin care production labels, advertised or claimed as natural and/or organic.

It was clear that the main focus for the thesis is to study the spa skin care production labels and its understanding and perception by potential consumers, but the author faced the issue, from which perspective to do the research: from scientific opinion about spa skin care products ingredient content or the perception of ingredients by consumers? It was decided to choose a more difficult approach and to study it from different sides in order to receive a three-dimensional view: from companies/manufacturers marketing case studies analysis, spa skin care product ingredient theoretical analysis and potential consumer spa skin care product label perception.

2.2 Research strategy

Research strategy is an activity that should be undertaken to ensure that there are sufficient resources available in order to perform the research in the certain time-frame and to make sure that methodology and approach to the design of the study are suitable for achieving objectives of the study. There is variety of approach methods in social research, qualitative,

approach method. There are three research approach methods, successfully described by Bryman and Bell (2011): quantitative, qualitative and mixed-methods. The most suitable research method for studying the understanding of spa skin care labels is mixed-method research approach for gathering and analysis of both qualitative and quantitative data. Johnson (2007) defines mixed methods research as “the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purpose of breadth and depth of understanding and corroboration” (Johnson, 2007).

The main reason for the use of mixed-method research was to combine data from qualitative insights from a number of chosen spa natural and/or organic skin care companies marketing strategies, qualitative insights from chosen spa natural and/or organic skin care products ingredient research, quantitative insights for consumer questionnaire survey, and validating and complementing quantitative findings by qualitative findings and vice versa.

2.4 Data collection and Analysis

In order to fulfil the purpose of this thesis, three different data collection areas were identified. Those areas were spa skin care manufacturers profile and marketing, spa skin care ingredient research, questionnaire survey for potential consumers.

Phase One: manufacturer marketing message. This phase is the first step and an important point for evaluation of spa natural and/or organic cosmetics manufacturers marketing message, which is analysed through information on their website and published press. Phase One was a crucial step in the research basis as chosen companies have to be judged according to several criteria. Firstly, this company production has to be sold and used in the spas, secondly, has to use “organic or natural” words in describing their production. Companies’ presentations were made according to green marketing mix concept of 4P’s (price, place, promotion and product).

Phase Two: 10 products label information and ingredient research. This phase is the second step in evaluation of spa natural and/or organic skin care products through information and statements on labels. Pharmaceutical knowledge and scientific publications were the main

tools in ingredient analysis. Face cream type skin care product from each represented company was chosen as a main product for ingredient and label information research. The reason for choosing such a product type is seen in every day and regular usage. The cream may contain chemical substances that influence and enhance other substances skin penetration and reach the bloodstream, and therefore create long-term positive or negative impact on body overall functionality.

Phase Three: spa skin care product label consumer questionnaire survey. During this phase, a questionnaire survey was undertaken. In the frames of this thesis, the author is using 10 skin care product labels in the questionnaire survey, when labels without any sign of brand are used in order to evaluate consumer attitude towards defined natural and/or organic cosmetic product. The questionnaire survey sample was composed according to the research requirements, where 28 open, closed and evaluation questions were created, 20 questions of them were 10 spa skin care product evaluating questions (see Appendix 1). The main target group consisted of Facebook users, being people in the age range 18 – 35, as well as older generation up to 64 years old, with different level of education, due to reason that there are no boundaries of the people age range using skincare. The questionnaire was disseminated using Facebook wall postings with request to voluntarily fill questionnaire and resend this questionnaire to their friends and acquaintances. Questionnaire was linked to SurveyMonkey.com website with made easier for respondent to participate and there was no reward or payment.

The questionnaire survey for consumers was conducted in the period from 21 of March to 21 of April 2014 using snowball sampling method. As defined by (Katz, 2006), snowball sampling method is a special non-probability method for developing a research sample where existing study subjects recruit future subjects from among their acquaintances. This sampling technique is often used in cases where a sampling frame is hard to establish and it is assumed that cases are affiliated through links that can be exploited to locate other respondents based on existing ones. Respondent-driven sampling also allows researchers to make estimates about the social network connecting the hidden population. (Katz, 2006)

2.5 Reliability, validity and replication

The three most well-known criteria for research are reliability, validity and replication. Reliability is “concerned with the question of whether the results of study are repeatable. The term is commonly used in relation to the question of whether or not the measures that are devised for concepts in business and management (such as team-working, employee, motivation, organizational effectiveness) are consistent” (Bryman and Bell (2011, p.41). Validity is “concerned with the integrity of the conclusions that are generated from a piece of research” (Bryman and Bell (2011, p.42). Replication assumes that if another researcher decides to complete the same study with the help of the same methodology the same results will be obtained ((Bryman, A, Bell, E, 2011).

The reliability and validity of the Phase One of the research – manufacturer marketing strategies - is determined by the reliability and validity of the sources, such as manufacturer website and information interpretation, used for building that part. And replication is dependent on the information provided by manufacturers marketing strategies updates.

The reliability, validity and replication of Phase Two – evaluation of spa natural and/or organic skin care products through information and statements on labels – are dependent on SkinDeep® skincare ingredient data base information, as well as changes in ingredient evaluation and restriction by governmental bodies and recently added research from such a scientific data base as PubMed.

And the reliability, validity and replication of Phase Three – spa skin care product label consumer questionnaire survey – achieved through well composed questionnaire survey, although some participants may doubt did they choose right or wrong answer, even only their opinion was needed. The main purpose of the questionnaire survey was to compare the outcome of label evaluation and participant opinion with findings from of Phase One and Phase Two.

2.6 Limitations

There are some limitations in the research was found by the author. Firstly, on the stage of collecting information in order to create theoretical frame author faced unlimited amount

of information in the press and internet regarding green skin care and labelling and it is necessary to admit that most of them did not contain precise definitions and information and were confusing. Secondly, while analyzing questionnaire survey results, author excluded unfinished survey responses and therefore the number of respondents is less than expected, which also could influence the results.

3. ANALYSIS OF THREE PHASES

The research process was based on three phases and a large amount of data needed to be collected. This data collection for the empirical part of the study had a defined structure: Phase One was followed by the Phase Two, Phase Two by the Phase Three.

3.1 Analysis of Phase One: manufacturer marketing strategy analysis

As it was mentioned above, Phase One based on evaluation of spa natural and/or organic cosmetics manufacturers marketing message, which is analysed through information on their website and published press. The chosen companies' products are sold and used in the spas and they are using words "organic or natural" in describing the company's products. The information findings about companies were judged according to their natural and organic strategies and beliefs, facts regarding manufactured natural and organic skin care, certification, and it has to be used and distributed at spas.

Ten companies were chosen at the early research stage of pending thesis and every company was contacted via e-mail in order to receive permission to mention their name and one of the products label in the research. The agreements were received only from two companies, and the owner of one of the companies requested to have a phone conversation in order to receive full explanation of strategies and purpose of the thesis, and therefore the names of three companies will be mentioned and their strategies will be carefully explained. Seven names of other companies will not be mentioned, instead an alphabetical letter will be used. The author has to admit, that one of the companies has no relation to the spa industry, but is promoting itself as a natural skin care manufacturer and was necessary in the questionnaire survey as a comparable label in order to evaluate how the majority of respondents will react on such a label.

Company Green People – is an English *natural and organic* skincare company, which started skincare manufacturing over 15 years ago. Due the reason of manufacturing natural and organic skin care products, Green People production is *used by several natural and organic spas in UK*. (Our journey, 2014)

Product. At present moment Green People is offering more than 100 *Soil Association certified organic products* in high performance award-winning ranges for all of the family including specialist skin conditions. They offer face care (skin care for every skin type, anti-age products, cleaners, face masks and scrubs), body and sun care (deodorants, moisturizers, slimming products, relaxing body care, hand & foot care) and hair care (hair products for every type of hair: dry, dull, normal, flat, oily, colored, anti-age, anti-hair-loss), bath and shower products, makeup products (blush, powders, concealers, foundations, mascaras, pencils, eyeliners, eye shadows, eye makeup removers, lipgloss), as well has also a wide range of products to men (deodorants, shower gels, shaving & after shave products, fragrances, face cleansers and moisturizers) and vegan skin care. Their products are packed with over 90% *active natural and organic ingredients* to protect, nourish, balance and, most importantly, respect consumers body, and to never use aggressive ingredients or synthetic chemicals such as sodium lauryl sulphate (SLS), parabens, phthalates, petrochemicals, alcohol (ethanol) or synthetic fragrances or colorants in their products.

Place. Green People is taking care of distribution channels and their products are sold via Internet, at spas and through banner advertisement, and sales generated through the link will automatically be tracked and credited to the owner of website or an email newsletter.

Price. Prices of products are average (10-35 GBP), but because of various discounts and offers customer can get products easily with a low price. However, some of the products could be expensive as well (50-70 GBP), so these products could fit to consumers who want to buy more valuable products.

Promotion. Green People offers all the time good discounts, such as “take 2 pay 1”, -50 % etc. In their webpage company offers beauty tips such as how to take care of your skin and overall organic lifestyle information and suggestions. Green People supports charity campaigns such as Chestnut Tree House is the only children’s hospice in Sussex and Penny Brohn Cancer Care. (Our journey, 2014)

Company Pinks Boutique – is an English *natural and organic skincare* company, which is the creation of two genial minds Luke Sherriff, a human scientist, and Kirstie Allen, a historian. This company’s skin care products are one of the most used skin care products in *natural and organic spas in UK*. (Our story, 2014)

Product. Pinks Boutique hand blended skin care is accredited by *Soil Association*, and their 100% *natural and organic products* are made entirely from *natural and organic ingredients* that can be full traced back at source. Pinks Boutique Eco luxury products are combining evocative natural fragrances with active, rich ingredients resulting in a luxurious feel and results on skin. They offer face skin care for every skin type, anti-age products, cleaners, face masks and scrubs, body skin care moisturizers, relaxing body care, hand & foot care), bath and shower products. Their formulations are therapeutically beneficial and are free from skin irritants, hormone disrupting chemicals, harmful preservatives, artificial colours and fragrances, and genetically modified or animal-derived ingredients. Pinks Boutique ingredients come from sustainable sources and are fully *biodegradable*, while their packaging is minimized to prevent excessive waste of plastic and card, and only *PET plastics and recyclable glass* is used. Also Pinks Boutique products or ingredients parts are *never tested on animals and are suitable for vegetarians*.

Place. Pinks Boutique are selling their production via Internet, as well as distributing to 88 stores in the spas, hair studios, hotels, resorts in the UK mainland, Ireland and Netherlands, where their production are used during treatments and supplied to consumers.

Price. The average price for products is in the frame of 10 to 200 GBP, and sometimes customers can receive an offer and purchase product with lower price.

Promotion. Pinks Boutique informs customers about their news through e-mail. In their website, they are informing about *responsibility for their impact on people and the environment*, the beauty industry and explaining the ins and outs of organics.

Company C is Brazilian company a leading brand of *natural, vegan and organic cosmetics*, which passionately committed to *environmental conservation, animal protection and social responsibility*. Company C ensures that all plants are wild crafted with environmental sensitivity protecting important forest ecology.

Product. This company offers unique body care products including *natural* hair colour and *organic* body care using sustainable Amazonian plants, innovative manufacturing techniques and *biodegradable packaging*. Company C is a *vegan certified company* and offers *Ecocert-certified organic, Cosmebio-certified natural or organic*, gluten-free products. Bottles are made of PET plastic and the “award-winning” pots for the face

products are 100% biodegradable flasks with no chemical ingredients in their composition that naturally degrade over 8 months after being discarded. Company C offers face and body skin care products, hair care products, as well as men skin care.

Place. The company C is present in 32 countries on all continents, and its products are available on 95% of the U.S. territory, in particular thanks to its distributor, the retail chain store specialized in natural products, it is distributed through the Internet, but also it can be found at spas and spa retail stores.

Price. The price range is variable, but mostly it is in the frames of 15 – 50 USD, which in general can be characterized as affordable for the average consumer, despite producing its products from organic and ecological ingredients.

Promotion. Company C is informing about latest news and products through newsletter and information at the retail chain stores. To promote sustainability, for its supply, the company C has its own plantations, but also relies on Amazonian communities with which it strives to build a fair trade relationship.

Company D - set up in the mid 60s as part of pharmaceutical business, and empowered with knowledge of *natural ingredients*, *current natural skin care company* was created in 1996. The brand's simple philosophy was rooted in the use of *natural and / or certified organic* ingredients of the highest quality; skin- and environmentally- friendly products with clinically tested efficacy.

Product. Company D offers wide range of skin care for face, body, hair, make-up, as well as skin care for men and herbals.

Place. Production of company D is distributed worldwide, through big named superstores, and also their own stores or via Internet. Shop premises are with minimal decoration, designer furniture and creative marketing and merchandizing material. Company D 'model store' is a concept that has been developed by our company, and its success lies in the fact that it depicts a store that is operational, comfortable, easily reproduced and attractive to visit.

Price. Products are affordable for everyday use, and the price range is from 15 EUR until 60 EUR.

Promotion Company D is informing about latest news and products through newsletter and information at the retail chain stores.

Company JustBe botanicals is a Scottish botanical skin care company, which follows the desire to restore emotional balance and enhance a sense of wellbeing. This company has been developed by Scottish Aromatherapist Gail Bryden JustBe is a handmade manufacturer of *natural*, emotionally nourishing, and therapeutic beneficial skin care products, using purely *natural ingredients*. The company's core values are authenticity, passion and purity. JustBe offers natural treatments, which are tailored to individual needs and starts with a full consultation and aroma journey to select the most beneficial blend of JustBe. In addition to the aromatic scent and the therapist's touch, JustBe offers the JustBe In-Tune Music, JustBe Inspiration Card that may provide a valuable insight or perhaps enjoy a cup of JustBe Botanical Blend Herbal Infusion at the end of *the spa treatment*. At the present moment JustBe is *moving towards natural skin care certification*, and at this point improving their visual marketing.

Product JustBe offering good range of natural skin care products for body and face, as well as specially designed treatments and herbal teas infusions.

Place. JustBe botanicals are selling their production via Internet, as well as distributing to stores in the spas in the UK mainland, where their production are used during treatments and supplied to consumers.

Price The average price for products is in the frame of 10 to 60 GBP, and sometimes customers can receive an offer and purchase product with lower price.

Promotion. JustBe informs customers about their news through e-mail.

Company F – an English company, driven by the passionate belief that health and beauty should be *more natural*, less synthetic, that it is important to respect people, animals and the environment. On the company's website it is explained what it is *organic*, and *certification*, and they are pointing out: "Just because the product is labelled 'organic' does not guarantee that it contains even a speck of natural ingredients produced from organic agricultural methods. So rather than relying on brand names, look for certification logos, or

check that organic ingredients are clearly and individually indicated on the ingredients list”.

Product. The company F *never tests its products on animals*, only willing human volunteers, Although this company has *Soil Association certification*, they are mentioning that they may not be able to avoid all of chemicals, but they believe it makes sense to do what they can to minimise contact wherever possible. Company F has good range of skin care products. They offer face care (skin care for every skin type, anti-age products, cleaners, face masks and scrubs), body and sun care (deodorants, moisturizers, slimming products, relaxing body care, hand & foot care) and hair care (hair products for every type of hair: dry, dull, normal, flat, oily, colored, anti-age, anti-hair-loss), bath and shower products, as well has also a wide range of products to men (deodorants, shower gels, shaving & after shave products, fragrances, face cleansers and moisturizers).

Place. Company F is taking care of distribution channels and their products are sold via Internet, at spas and through banner advertisement, as well as nature or green shows all over UK mainland.

Price. Prices of products are average (10-35 GBP), but often offers discounts and promotional activities..

Promotion Company F is improving customers, colleagues, suppliers and families and communities through *organic farming*, trading fairly, and respectful supportive working conditions, as well as striving to protect the planet within their competence - for future, children's future, and generations to come. And is endorsed by the leading animal protection organisations, and supports human societies and scientific research bodies in the UK and US.

Company G – an American company established almost eight years ago. And company motto is “If you can't eat it, you shouldn't apply it on your skin”. Also on the company website the information regarding synthetics and chemical substances is shared, which is pointing out that company is using *100% food-grade organic* ingredients, as well as offering certified organic sheets, towels and disposable cotton products that are used during the treatments.

Product. Focusing its attention on the *natural products* and therapeutic treatments without chemicals, and focusing its attention on the people with allergies, skin sensitivities and various autoimmune skin conditions, offering products for bath, body care, face care and hair care.

Place Customers can order products via Internet or purchase the at spa retail stores.

Price The price of the products can be said to be average. The prices of the products are between 15 USD to 65 USD.

Promotion informs customers about their news through e-mail.

Company H is a German skin care company with 25 years of experience in skin care industry. Company is claiming that is *100% natural*, with rich active ingredients and is *not tested on animals*. Company is cooperating with small ecological farms.

Product. This company is using *fresh plants and certified organic Aloe Vera* as a foundation of their creams and lotions. In the manufacturing process, this company is avoiding substances such as alcohol, citric acid, parabens, mineral oils and genetically modified plants and using plant extracts with known therapeutic effect.

Place Customers can order products via Internet or purchase the at spa retail stores only.

Price The prices of the company's vary from the type of products. Company's prices as a range from average to slightly expensive.

Promotion informs customers about their news through e-mail.

Company I is an American *natural skin care* product company, in production of which the finest most reliable raw materials are harvested worldwide and with the knowledge of the flora, fauna, mineral and chemical elements is used to create each product.

Product. Company is producing cosmeceutics for body care (soaps, gels, washes, lotions, moisturizers, scrubs) and technologically advanced facial care (milks, toners, lotions, moisturizers, creams, oils, balms).

Place. Created formulas went beyond target-specific definition and skin care products are distributed nationwide through Physician's Offices, *Medi Spas*, *Renowned Day Spas* and Specialty Boutiques.

Price. Slightly expensive price strategy, but due to reason that company I producing cosmeceutics such a price strategy is acceptable for average consumer..

Promotion. Company I informing their costumer through newsletters, as well as advertisements in Physician's Offices, *Medi Spas*, *Renowned Day Spas* and Specialty Boutiques.

Company J is an English skin care company, which as it was mentioned before *has no relation to the spa industry*, but is promoting itself as a *natural skin care manufacturer*. As this company is promoting itself as *green company*. Company is implementing and improving their impact on the environment by reducing the energy and generating less waste, and using less water. Although they are using natural extracts in their production, there is *no information regarding certification*.

Product. This company offers a diverse range of products for its clients, majority of which are for women, but there are several men's product lines and range of baby products approved by pediatricians. According to company's statement, they are producing *natural skin care* with finest raw ingredients, *without testing on animals*, and their production is 100% vegetarian. The wide range of goods includes products for the body, face, hair as well as products for home. Personal care products include: body butters, make up, full skin care ranges, as well as men's skin care.

Place. The range of company's products can be found both in independent company brand stores, in cosmetic departments of large shopping centers, as well as their products can be purchased via Internet.

Price. The prices of the company's vary from the type of products. According to website, company's prices as a range from average to slightly expensive.

Promotion. The company's values: against animal testing, support community fair trade, activate self-esteem, defend human rights and protect our planet, contributes to people awareness about this company and make the company one of the leader in the sphere of

ethical cosmetics production. The company's world-wide ethical campaigns that aimed to help people from different parts of the globe made such a company the world-famous company with high brand awareness among cosmetic products consumers.

Analysis of Phase Two - ingredient evaluation analysis

As it was mentioned before, face cream type skin care product from each represented company was chosen as a main product for ingredient and label information research due to the reason of regular usage and therefore long-term positive or negative impact on body overall functionality. Different types of labels are presented: with certification logo, without certification logo, with organic ingredients percentage, without organic ingredients percentage, in English, Latin, dividing into two groups natural and organic, chemical. In the manufacturer case, originally a list of ingredients is listed by descending order of weight in INCI nomenclature (International Nomenclature Cosmetic Ingredients) and therefore there is straight correlation between weight of ingredients and percentage of organic or natural ingredients stated on the label. The percentage found by author is different from the percentage amount stated on the label due to different calculations. In the Phase 2 analysis, due evaluating skin care product from the consumer and scientist combined point of view, calculated total percent amount of natural, organic and chemical ingredients, based on claims from label divided by total amount of stated ingredients, where water (aqua) is excluded from calculations.

Label 1 is label with ingredients listed in Latin language, percentage of organic ingredients from total amount of ingredients, and four logos, which are pointing out organic nature of such a product, and also these ingredients are fairly traded and vegan (see Pic.1).

This product contains 34.3% organic ingredients from the total number stated on label (see Appendix 2, Tab.1) It is different from the percentage amount stated on the label due to different calculations. In the manufacturer case, percentage was calculated based on weight of each organic ingredient. Author calculated total amount of organic ingredients based on claims from label divided by total amount of stated ingredients, where water (aqua) is excluded from calculations. Organic ingredients were mostly skin-conditioning ingredients, which have nourishing and moisturising properties. Product also contains humectant and skin protectant, such as vegetable glycerine, and few antioxidant

ingredients – Evening Primrose Seed Oil, Rosemary Leaf Extract and Green Tea Leaf Extract.

Label 1.

Anti-ageing cream with 89.9% certified organically grown ingredients

INGREDIENTS:

AQUA, BUTYROSPERMUM PARKII BUTTER** HELIANTHUS ANNUUS SEED OIL*, OLEA EUROPAEA FRUIT OIL*, GLYCERIN*, SQUALANE, CETYL ALCOHOL, CETEARYL GLUCOSIDE, CETEARYL ALCOHOL, ELAEIS GUINEENSIS OIL**, SIMMONDSIA CHINENSIS SEED OIL*, GLYCERYL STEARATE, ALOE BARBADENSIS LEAF JUICE POWDER*, PERILLA FRUTESCENS SEED OIL*, OENOTHERA BIENNIS SEED OIL*, PERSEA GRATISSIMA OIL*, BAICALIN, ROSMARINUS OFFICINALIS LEAF EXTRACT*, CAMELLIA SINENSIS LEAF EXTRACT*, ALTHAEA OFFICINALIS ROOT EXTRACT*, PERSEA GRATISSIMA OIL UNSAPONIFIABLES, PROPANEDIOL, AROMA [PELARGONIUM GRAVEOLENS OIL**, SANTALUM AUSTROCALEDONICUM WOOD OIL*], HYDROLYSED JOJOBA ESTERS, FUCUS VESICULOSUS EXTRACT, SODIUM STEAROYL GLUTAMATE, CITRIC ACID, BENZYL ALCOHOL, SALICYLIC ACID, SORBIC ACID, LIMONENE*, LINALOOL*, CITRAL*, CITRONELLOL*, GERANIOL*. *89.9% ORGANIC. **FAIRLY TRADED.






Picture 1. Label 1 ingredient list (created by author using Company Green People information)

40.0 percent of total number of listed ingredients is natural ingredients, which are skin conditioning, antioxidant and scent agents. Although it is important to admit, that natural ingredients includes scent oils, which may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicant, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis.

25.7 percent of total number of listed ingredients is chemical surfactants, emulsion stabilisers, and viscosity increasing agents, which are necessary for product to stay consistent. Few of such ingredients are suspected to be environmental toxins – Cetyl Alcohol, Glyceryl Stearate, Cetearyl Alcohol. During ingredient analysis stage, few preservatives were discovered - Benzyl Alcohol, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful, and Sorbic Acid, which can cause non-reproductive organ system toxicity.

Label 2.

Moisturising cream with 91% organic ingredients

INGREDIENTS:

AQUA, HELIANTHUS ANNUUS (SUNFLOWER) SEED OIL*, BUTYROSPERMUM PARKII (SHEA) BUTTER*, THEOBROMA CACAO (COCOA) SEED BUTTER*, CERA ALBA*, GLYCERIN***, COCO-GLUCOSIDE, GLYCERYL STEARATE, SUCROSE STEARATE, COCONUT ALCOHOL, OLEA EUROPAEA (OLIVE) FRUIT OIL*, LINUM USITATISSIMUM SEED OIL*, ALOE BARBADENSIS LEAF JUICE POWDER*, CAMELLIA SINENSIS LEAF EXTRACT*, PHENOXYETHANOL, POTASSIUM SORBATE, TOCOPHEROL, XANTHAN GUM, LACTIC ACID, BENZYL ALCOHOL, PARFUM*; CITRUS NOBILIS (MANDARIN ORANGE) PEEL OIL*, CYMBOPOGON FLEXUOSUS (LEMONGRASS) OIL*, CITRAL**, GERANIOL**, LIMONENE**. (*CERTIFIED ORGANIC. **NATURAL CONSTITUENTS OF ESSENTIAL OILS. ***ORGANIC ORIGIN.)



Picture 2. Label 2 ingredient list (created by author using PinksBoutique information)

Label 2 – label with ingredients listed in Latin and English language, percentage of organic ingredients from total amount of ingredients, and Soil Association certification logo. Manufacturer dividing skin care product ingredients into certified organic, natural constituents of essential oils, and ingredients with organic origin (see pic.2).

This product contains 50.0% organic ingredients from the total number stated on label (see Appendix 2, Tab 2). It was calculated same way as in the Label 1 calculations. Author calculated total amount of organic ingredients based on claims from label divided by total amount of stated ingredients, where water (aqua) is excluded from calculations. Organic ingredients were mostly skin-conditioning ingredients, which have nourishing and moisturising properties. Coco-glucoside, which from the first sign seems chemical substance, it has organic origin and is used as emulsifier, although it is hazardous and may cause skin irritation and eye damage. Product contains also humectant and skin protectant, such as vegetable glycerine, as well as Green Tea Leaf Extract, which has antioxidant properties. Unfortunately one fragrance ingredient, which is Mandarin Orange Peel Oil is banned or found unsafe in some countries due to intoxicating non-reproductive organ system.

12.5 percent of total amount of ingredients stated in the label are natural ingredients, and all of them are scent ingredients. Although it is important to admit, that such a scent oils may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicant, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis. As well as Geraniol is a subject to restrictions in some countries. Also Limonene has to be used carefully, and creams containing such an ingredient should not be exposed directly to sunlight and air, due to Limonene degradation process and converting into oxidation products, which can act as skin and respiratory irritants.

The rest 37.5 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, and viscosity increasing ingredient. Few preservatives were discovered - Benzyl Alcohol, Potassium Sorbate and Phenoxyethanol, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful, and, which can cause non-reproductive organ system toxicity.

Label 3. Facial Moisturizer

INGREDIENTS:

Aloe Leaf Juice (Barbadensis), Cetearyl Olivat, Sorbitan Olivat, Macadamia Seed Oil (Ternifolia), Dehydracetic Acid and Benzyl Alcohol, Glyceryl Stearate, , Babaçu Seed Oil(Orbignya Oleifera),PCA Na, Cocoa Seed Butter(Theobroma Cacao),), Cupuaçu Seed Butter (Theobroma Grandiflorum). ESSENTIAL OIL: Eucalyptus (Globulus), Eucalyptus (Citiodora), Citronella (Cymbopogon Winterianus),Orange(Citrus Aurantium), Cassia (Cinnamomum Cassia), Ylang Ylang (Canaga Odorata), Styrix Tonkinensis Gum, Juniper (JUniperus Virginiana), Vegetable Glycerin,Uccuba (Viola Sebifera) Nut Butter, Acerola Fruit Extract (Malpighia Glabra) with Desxtrin, Sodium Hydroxide, Preciosa Essential Oil (Aniba Canelila).



Pic.3. Label 3 ingredient list (created by author using Company C information)

Label 3 is label with ingredients listed in English language with Latin general name included, EcoCert and CosmeBio certification logos, Cruelty Free and Vegan certification and divided main ingredients and essential oils. In this ingredients list is not specified

whether they have natural or organic origin. Therefore ingredients are divided into natural (possibly organic) and chemical ingredient lists.

This product contains 72.0 percent of natural ingredients from the total number stated on label (see Appendix 2, Tab. 3). It was calculated same way as in the Label 1 calculations. Author calculated total amount of natural ingredients based on claims from label divided by total amount of stated ingredients. Natural ingredients were mostly skin-conditioning ingredients, which have nourishing and moisturising properties. In the ingredient list there are two ingredients which showing toxic and therefore allergic properties – Cinnamon bark and Juniper.

The rest 28.0 percent of total number of listed ingredients are surfactants, emulsion stabilisers, pH adjuster and hydrating agent. Two synthetic preservatives were discovered - Benzyl Alcohol and Dehydracetic Acid, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful and can cause non-reproductive organ system toxicity.

Label 4.

Moisturising and brightening cream with 96.8% natural content

INGREDIENTS:

Aqua/Water/Eau, Glycerin, Dicaprylyl Ether, Dicaprylyl Carbonate, Alcohol Denat, Isoamyl Laurate, Aloe Barbadensis Leaf Juice, Cetearyl Alcohol, Glyceryl Stearate Citrate, Simmondsia Chinensis (Jojoba) Seed Oil, Distarch Phosphate, Imperata Cylindrica Root Extract, Acrylates/C10-30 Alkyl Acrylate Crosspolymer, Alpha-Methyl Ionone, Ascorbyl Palmitate, Ascorbyl Tetraisopalmitate, Benzyl Alcohol, Benzyl Benzoate, Benzyl Salicylate, Butylphenyl Methylpropional, Caprylyl Glycol, Carbomer, Citronellol, Eugenol, Geraniol, Glyceryl Caprylate, Glyceryl Stearate, Helianthus Annuus (Sunflower) Seed Oil, Hexyl Cinnamal, Hydrolyzed Sodium Hyaluronate, Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde, Lecithin, Parfum (Fragrance), Phenoxyethanol, Rosa Canina Fruit Extract, Rosa Canina Fruit Oil, Rosa Moschata Seed Oil, Rosa Rubiginosa Seed Oil, Salix Alba (Willow) Bark Extract, Sodium Hydroxide, Tetrahydrodiferuloylmethane, Tetrasodium Glutamate Diacetate, Tocopherol, Tocopheryl Acetate.

Picture 4. Label 4 ingredient list (created by author using Company D information)

Label 4 contains information about percentage of natural ingredients, ingredients listed in English language with Latin general name included, without certification. Ingredients are divided into natural and chemical ingredient lists (see pic.4).

This product contains one-third of natural ingredients from the total number stated on label (see Appendix 2, Tab. 4). Author calculated total amount of natural ingredients based on claims from label divided by total amount of stated ingredients, except water. Natural ingredients were mostly skin-conditioning ingredients. Product contains humectant and skin protectant, such as vegetable glycerine. Scent ingredients all has been associated with allergic reactions and being possible human immune system toxicant, and some of them are subject to restrictions.

The rest 66.67 percent of total number of listed ingredients are surfactants, emulsion stabilisers, skin-conditioning, antimicrobial, viscosity increasing agents. In total 29 different chemical substances were examined. There are few chemical ingredients which required careful attention, such as Alcohol Denat. It is a mixture of ethanol (ethyl alcohol) with a denaturing agent, and used as antifoaming and antimicrobial agent. But ethanol itself is considered broadly toxic and linked to birth defects following excessive oral ingestion. Alpha-Methyl Ionone is naturally or synthetically produced scent chemical, which in some countries is recommended restricted or already banned in cosmetics. It is possible human immune system toxicant or allergen as well as suspected to be an environmental toxin. Another chemical is Benzyl Alcohol which is synthetically manufactured and used as solvent and preservative, is associated with contact allergy, immunotoxicity and classified as expected to be toxic or harmful. Solvent and preservative Benzyl Benzoate is associated with allergies and contact dermatitis and endocrine disruption, which will disturb organism normal functioning. Also scent agent Butylphenyl Methylpropional and UV light absorbent Benzyl Salicylate showing allergic reactions and endocrine disruption. Other chemical Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde, which is perfuming agent is restricted in cosmetics. Tocopheryl Acetate - a chemical compound that consists of acetic acid and tocopherol (vitamin E) is used as an antioxidant. But has human skin toxicant or allergen effect with strong evidence and one or more animal studies show tumor formation at high doses.

Label 5. Restoring Cream

INGREDIENTS:

Water (Aqua), Caprylic/Capric Triglycerides, Andiroba Oil (*Carapa Guianensis*), Coconut Oil (*Cocos Nucifera*), Zinc Oxide, Sesame Seed Oil (*Sesamum Indicum*), Self Heal Extract (*Prunella Vulgaris*), Oat (*Avena Sativa* Glucan), Oat Extract (*Avena Sativa*), Xanthan Gum, Cucumber Extract (*Cucumis Sativus*), Sodium Levulinate, Sodium Anisate, Glyceryl Behenate, Geranium Oil (*Pelargonium Graveolens*) and Petitgrain Oil (*Citrus Aurantium*).

Picture 5. Label 5 information (created by author using JustBe botanicals information)

Label 5 has ingredients listed in English language, no percentage of organic ingredients, and no certification logo (see pic.5).

This product contains 64.3 percent natural ingredients from the total number stated on label (see Appendix 2, tab.5). Author calculated total amount of organic ingredients based on claims from label divided by total amount of stated ingredients, where water (aqua) is excluded from calculations. Natural ingredients were mostly skin-conditioning ingredients, which have nourishing and moisturising properties. The fragrance ingredient Petitgrain Oil is the subject to restrictions in the International Fragrance Association.

35.7 percents of total number of listed ingredients are chemical surfactants and emulsion stabilisers, which are necessary for product to stay consistent. Few preservatives were found, which chemically synthesized from natural origin. Glyceryl Behenate increases skin absorption and therefore increasing sensitivity to allergens and may cause skin, eyes or lung irritation. The colorant and sunscreen agent Zinc Oxide is an inorganic oxide which can bioaccumulating in the body and create non-reproductive organ system toxicity.

Label 6 with ingredients listed in Latin and English language, no percentage of organic ingredients, and no certification logo, and informing consumer about organically produced ingredients (see pic.6)

Label 6. Purifying Daily Moisture

INGREDIENTS:

Aqua (Water), Cetyl alcohol, Sucrose stearate, Glycerin*, Epilobium fleischeri (Alpine willowherb) extract*, Galium aparine (Cleavers) extract*, Cymbopogon martinii (Palmarosa) herb oil*, Canarium luzonicum (Elemi) gum oil, Citrus limonum (Lemon) peel oil expressed*, Citrus aurantium (Neroli) flower oil*, Boswellia carterii (Frankincense) oil, Melissa officinalis (Lemon balm) leaf oil*, Melaleuca alternifolia (Tea tree) leaf oil*, Coriandrum sativum (Coriander) fruit oil*, Cetearyl olivate, Sorbitan olivate, Potassium sorbate, Sodium hyaluronate, Xanthan gum, Levulinic acid, *Citral*, *Citronellol*, *Geraniol*, *Farnesol*, *Limonene*, *Linalool*. *Organically produced ingredient.

Picture 6. Label 6 ingredient list (created by author using Company F information)

This product contains 36.0 percent of organic ingredients from the total number stated on label (see Appendix 2, Tab 6). It was calculated same way as in the Label 1 calculations. Author calculated total amount of organic ingredients based on claims from label divided by total amount of stated ingredients, where water (aqua) is excluded from calculations. Organic ingredients were fragrance ingredients and skin-conditioning ingredients, which have nourishing and moisturising properties. Product contains also humectant and skin protectant, such as vegetable glycerine. While researching ingredients, there was some confusing with the name of ingredient. It was stated Citrus Aurantium (Neroli) Flower Oil and in pharmacognosy there is Citrus Auratium Flower Extract, which is Bitter Orange Extract or Citrus Amara Flower Extract, which is Neroli Flower Extract.

34.8 percent of total amount of ingredients stated in the label are natural ingredients, and one viscosity ingredient and other are scent ingredients. Although it is important to admit, that such a scent oils may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicant, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis. As well as Geraniol is a subject to restrictions in some countries. Also Limonene has to be used carefully, and creams containing such an ingredient should not be exposed directly to sunlight and air, due to Limonene degradation process and converting into oxidation products, which can act as skin and respiratory irritants.

29.2 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, and viscosity increasing ingredients. In the ingredient list the preservative was discovered, which is Potassium Sorbate, which may cause non-reproductive organ toxicity. One other ingredient, which is used as a emulsion stabilizer and organic alcohol – Cetyl Alcohol, is suspected to be an environmental toxin and may cause non-reproductive organ toxicity

Label 7. Face cream

INGREDIENTS:

Purified water; organic cold-pressed vegetable oils; organic & wild harvested herbs of calendula, elder, hollyhock, rose petals, self heal, chickweed, lavender; lanolin; beeswax; colloidal silver & gold; vitamin e; lavender essential oils

Picture 7. Label 7 ingredient list (created by author using Company G information)

Label 7 has ingredients listed in English language, no percentage of organic ingredients, and no certification logo (see pic.7).

This product contains 63.6 percent of organic ingredients from the total number stated on label. Organic ingredients were mostly skin-conditioning ingredients, which have nourishing, moisturising and regenerating properties.

This product contains 18.2 percent natural ingredients from the total number stated on label (see Appendix 2, tab.7). Natural ingredients were mostly skin-conditioning and skin protectant. Among the natural ingredients, animal derived substance - Lanolin was discovered. It is a refined derivative of the fat-like sebaceous secretion of sheep, which is used as emulsion stabilizer and skin protectant.

22.2 percents of total number of listed ingredients are preservative and antioxidant. Few preservatives were found, which chemically synthesized from natural origin. The antioxidant Vitamin E is safe, when is used in a very small ammount, but can influence tumor formation at high doses.

Label 8. Rich intensive cream

INGREDIENTS:

42%: Aloe Barbadensis - of natural organic aloe vera fresh juice - aloe vera L. (certified organic), 58%: persea gratissima, Simmonsia chinensis (from organic cultivation), olea europaea (from organic cultivation), lanolin, pink damascena, cera alba (certified organic), Butyrospermum Parkii Butter (from organic cultivation), theobroma cacao (from organic cultivation), aqua rosa damascena (from organic cultivation), sodium benzoate, citral, citronellol, eugenol, geraniol, linalool.

Picture 8. Label 8 ingredient list (created by author using Company H information)

Label 8 contains list of ingredients in Latin language with no percentage of organic ingredients, no certification logo, divided clearly into two groups: base and additional ingredients (see pic.8). As it is seen from the label this product contains 42 percent of base, which is certified organic Aloe Vera fresh juice, and 58 percent of additional substances, coming from different sources.

This product contains 44.0 percent of organic ingredients from the total number stated on label (see Appendix 2, Tab. 8). Same as in previous cases, author calculated total amount of organic ingredients based on claims from label divided by total amount of stated ingredients, except water. Organic ingredients were mostly skin-conditioning and fragrance ingredients.

50.0 percent of total amount of ingredients stated in the label are natural ingredients, and one viscosity ingredient and other are scent ingredients. Although it is important to admit, that such a scent oils may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicant, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis. As well as Geraniol is a subject to restrictions in some countries. Also Limonene has to be used carefully, and creams containing such an ingredient should not be exposed directly to sunlight and air, due to Limonene degradation process and converting into oxidation products, which can act as skin and respiratory irritants. Also in this product animal derived substance - Lanolin was discovered, which is a refined derivative of the fat-like sebaceous secretion of sheep.

The rest 6 percent of total number of listed ingredients is preservative – sodium benzoate, which has limited evidence on organ toxicity.

Label 9. Facial moisturizer

INGREDIENTS:

Purified Water (Aqua), Aloe Vera Gel, Barbadenis Leaf Extract, Rhatany Root Extract, Green Tea, Caprylic/Capric Triglycerides, Rice Bran Oil, Sesame Seed Oil, Vitamin E, Linoleate, Wild Pansy Extract, Micronized Titanium Dioxide, Comfrey Root, Dexapanthanol, Hyaluronic Acid, Grape Seed Extract, Licorice Root Extract, Sodium PCA, Alpha Bisabolol, Allantoin, Plantain, Beta Glucan, Pycnogenol, Riboflavin, Fruit Extracts.

Picture 9. Label 9 ingredient list (created by author using Company I information)

Label 9 contains ingredients listed in English language, no percentage of organic ingredients, no certification logo, with chemical abbreviation.

This product contains 54.5 percent natural ingredients from the total number stated on label (see Appendix 2, tab.9). All natural ingredients are skin-conditioning ingredients, which have nourishing and moisturising properties.

45.5 percent of total number of listed ingredients are chemical surfactants and emulsion stabilisers, which are necessary for product to stay consistent. The antioxidant Vitamin E is safe in a very small ammount, but can influence tumor formation at high doses. Micronized Titanium Dioxide is used as a sunscreen agent, but expected to be harmful or toxic, and in the studies on mammalian cells show positive mutation results.

Label 10 with ingredients listed in Latin and English language with against animal testing logo, chemical ingredients abbreviation. This label comes from natural skin care product manufacturer and was necessary in the questionnaire survey as a comparable label in order to evaluate how the majority of respondents will react on such a label.

Label 10.

Mousturizing cream

INGREDIENTS:

Aqua (Water), Isopropyl Palmitate, Glycerin, Butyrospermum parkii (Shea Butter), Mica, Sorbitol, Triethanolamine, Caprylic/Capric Triglyceride, Cera Alba (Beeswax), Glyceryl Stearate, PEG-100 Stearate, Carbomer, Phenoxyethanol, Steareth-2, Steareth-21, Tocopheryl Acetate, Methylparaben, Disodium EDTA, Parfum, Butylparaben, Ethylparaben, Isobutylparaben, Propylparaben, Citronellol, Alpha-Isomethyl Ionone, Linalool, Geraniol, Limonene, Citral, Benzyl Alcohol, Eugenol, Farnesol, CI 77891, CI 14700.



Picture 10. Label 10 ingredient list (created by author using Company J information)

This product contains 34.4 percent natural ingredients from the total number stated on label (see Appendix 2, tab.10). All natural ingredients are skin-conditioning ingredients and scent agents. Product also contains humectant and skin protectant, such as vegetable glycerine. The scent oils which are listed in the ingredient list, may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicant, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis. As well as Geraniol is a subject to restrictions in some countries. Also Limonene has to be used carefully, and creams containing such an ingredient should not be exposed directly to sunlight and air, due to Limonene degradation process and converting into oxidation products, which can act as skin and respiratory irritants.

65.6 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, viscosity increasing ingredients, preservatives. The product contains a big amount of toxicants or human skin allergens, such as triethanolamine, glyceryl stearate, phenoxyethanol, steareth-2, steareth-21. Few ingredients are restricted for use in cosmetics, such as methyl-, butyl-, ethyl-, isobutylparabens. Monoazo colorant – CI 14700 is also found unsafe for use in cosmetics. The antioxidant Vitamin E is safe in a very small amount, but can influence tumor formation at high doses. Another chemical is Benzyl Alcohol which is synthetically manufactured and used as solvent and preservative, is associated with contact allergy, immunotoxicity and classified as expected to be toxic or

harmful. As well as Alpha-Isomethyl Ionone – fragrance ingredient is restricted for use in cosmetics.

3.2 Analysis of Phase Three. Spa skin care product label potential consumer questionnaire survey analysis.

As it was mentioned before, the author is using 10 skin care product labels in the questionnaire survey, when labels without any sign of brand are used in order to evaluate consumer attitude towards defined natural and/or organic cosmetic products. The questionnaire survey consists mainly from two parts and in total from 28 open, closed and evaluation questions. In the first part of the questionnaire were introduction questions about the demographic data, with questions about sex, age, education level and job level and to making sure that participants understood the purpose. In the second part of the questionnaire participants were confronted with the 20 questions of them were 10 spa skin care product labels (see Appendix 1 for questionnaire survey details) for evaluation purposes. The questionnaire survey for potential consumers was conducted in the period from 21 of March to 21 of April 2014 and total number of respondents reached 364. After answering questionnaire survey questions, the questionnaire was concluded by questions about the participant profile and understanding the label and ingredient information, although it is necessary to admit that only 180 respondents' answers were evaluated due the reason that other 184 respondents filled the questionnaire only until the label evaluation part.

Questionnaire survey participant profile analysis

As it was mentioned above, 180 respondents' answers were analysed (see Tab 2).

Tab. 2 Questionnaire survey respondents separation by gender

Are you male or female?		
Answer Options	Response Percent	Response Count
Male	13,3%	24
Female	86,7%	156
<i>answered question</i>		180

24 respondents were male and 156 respondents were females, which is 13.3 percents and 86.7 percents respectively. Although the name and theme of survey was mentioned in the invitation of participation, also men showed interest in the participation in such a survey.

Tab 3. Questionnaire survey respondents separation by age

What is your age?		
Answer Options	Response Percent	Response Count
18 to 24	37,8%	68
25 to 34	46,7%	84
35 to 44	6,7%	12
45 to 54	6,7%	12
55 to 64	2,2%	4
<i>answered question</i>		180

The participants' age range was 18 to 64. 84 participants were from the major participant group, which was from 25 to 34 years old and it was 46.7 percents from the total number of respondents (see Tab 3). The second biggest group of participants was from 18 to 24 years old, which counted 68 participants or 37.8 percents from total number of participants. The two mentioned above groups was followed by three minor groups: 35 - 44 years old, 45 - 54 years old and 55- 64 years old. (see Tab.3). Also respondent educational level analysis was performed. (see Tab.4)

Tab 4 Questionnaire survey respondents separation by educational level

What is the highest level of school you have completed or the highest degree you have received?		
Answer Options	Response Percent	Response Count
Less than high school degree	2,2%	4
High school degree or equivalent (e.g., GED)	6,7%	12
Some college but no degree	11,1%	20
Associate degree	4,4%	8
Bachelor degree	42,2%	76
Graduate degree	33,3%	60
<i>answered question</i>		180

The analysis showed that 76 respondents from 180 have bachelor degree, which is 42.2 percent. 33.3 percent of total respondent number, which are 60 people, have graduate

degree. Third group – 20 – were participants with some college, but no degree, which is 11.1 percent.

Tab 5. Questionnaire survey respondents separation by job level

Which of the following best describes your current job level?		
Answer Options	Response Percent	Response Count
Owner/Executive/C-Level	11,1%	20
Senior Management	4,4%	8
Middle Management	28,9%	52
Intermediate	26,7%	48
Entry Level	28,9%	52
<i>answered question</i>		180

In case of question about current job level, three groups were equal, which were middle management, intermediate and entry level, 28.9 percent: 26.7 percent : 28.9 percent respectively and in total of 152 respondents. 28 people were dividing senior management and owner/executive level of job, which was 4.4percent and 11.1 percent respectively (see Tab.5).

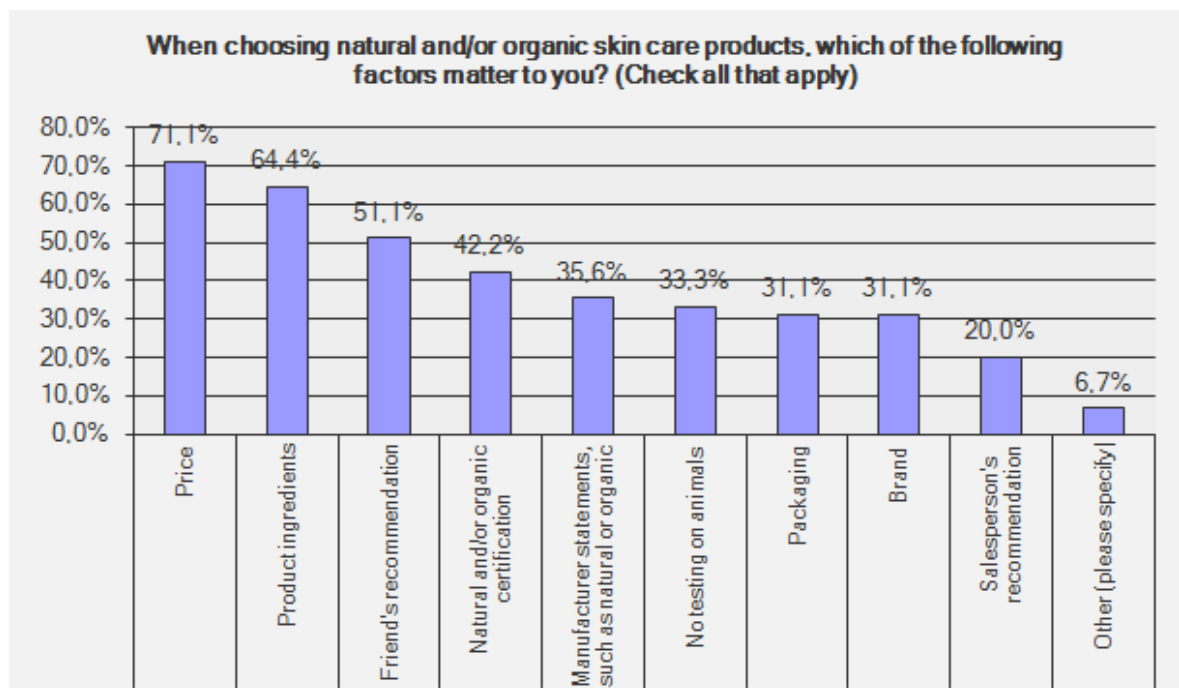
28.9 percent of total number of respondents purchased skin care products at spa in the past 6 months, and 50 percent of them purchase natural and/or organic spa skin care product (see tab 6). In the Table 6 is seen that a high number of respondents, e.g. 128, are answered Not Applicable to the question if the purchased product was natural and/or organic spa skin care product. Not Applicable is pointing out that if person did not make purchase at spa within last six months, therefore he/she made a choice of Not Applicable in order not to precise his/her purchase.

In order to prepare respondent mind to focus their attention on evaluating skin care labels, multiple choice question about important factors, when choosing natural and/or organic skin care, was asked. For 128 (71.1%) respondents the biggest factor was pricing, which was followed by 116 (64.4%) respondents, who choose product ingredients.

Tab 6. Response distribution to the questions about purchases at spa

Did you purchase any skin care products at spa in the past 6 months?		
Answer Options	Response Percent	Response Count
Yes	28,9%	52
No	71,1%	128
<i>answered question</i>		180
If yes, was it natural and/or organic spa skin care product?		
Answer Options	Response Percent	Response Count
Yes	14.45%	26
No	14.45%	26
N/A	71.1%	128
<i>answered question</i>		180

92 (51.1%) respondents are relying on friend's recommendation. 76 (42.2%) respondents are paying attention to natural and/or organic certification. 12 (6.7%) respondents choose other answer and specified factors such as CE mark, GMP, ISO standards, customer reviews and country where it was manufactured (see Pic.14)



Picture 14. Respondent distribution by factors when choosing natural and/or organic skin care product.

Questionnaire survey participants were evaluating skin care labels using rating scale. And rating scale questions calculate a weighted average based on the weight assigned to each answer choice (see appendix 3). (What is the Rating Average and how is it calculated, 2014)

Tab.7. Skin care product labels rating average results.

Label	Organic	Natural	Chemical	Contains small amount of organic ingredients	Contains small amount of natural ingredients	Contains small amount of chemical ingredients
Label 1	2,96	2,53	2,07	1,96	1,84	2,69
Label 2	3,16	2,69	2,16	2,18	2,04	2,78
Label 3	2,84	3,11	1,82	1,78	1,84	2,60
Label 4	1,49	2,02	2,31	1,84	2,22	1,91
Label 5	2,09	2,69	2,04	1,71	1,84	2,09
Label 6	2,16	2,20	2,02	1,71	1,82	2,18
Label 7	3,16	3,49	1,40	2,00	2,16	2,31
Label 8	3,04	2,91	1,96	2,13	2,04	2,13
Label 9	2,09	2,56	2,11	2,02	2,33	2,24
Label 10	1,40	1,40	3,29	2,11	2,13	2,22

Label 1 was evaluated in total by 180 respondents. After analyzing rating average, it was found that this spa skincare label was evaluated as *organic product with a small amount of chemical ingredients* (See Tab.7). The most precise evaluation was given by survey participants, being female in age range of 45 – 54 with middle management position with high school or equivalent degree. Although it is necessary to admit that in approximately in average of 8 percent of respondents, females in the age 18 – 24 with bachelor degree and being on intermediate job level, found such a label difficult to evaluate, which shows that young consumers are still confused in regards with information on the label. In the case of question would they purchase a skin care product with such a label, 55.6 percent, which is equal to 100 respondents, females on average in the age 25 – 34 with bachelor or graduate degree on the middle management position, responded positively, 13.3 percents, which is 24 respondents answered with “other” mentioning that it is difficult to understand some of ingredients, as well as they are allergic to some ingredients.

After analyzing rating average, it was found that spa skincare label 2 was evaluated as *organic product with a small amount of chemical ingredients* (See Tab.7), and average being female or male in age range of 25 – 44 with senior management position with high school or associate degree. In the case of Label 2 smaller respondent number, in average 4 percent, females in the age 25 – 34 with bachelor degree and being on middle management or intermediate job level, got confused and had difficulties to evaluate such a skin care label. 66.7 percent of all respondents showed willingness to purchase skin care product

with such a label, which is higher comparing with Label 1 purchase willingness rate, but with the same profile of respondents, being females on average in the age 25 – 34 with bachelor or graduate degree on the middle management position. 48 respondents, which is 26.7 percent, still rejected the possibility of acquiring such a product for their usage. 12 people chose another response, and a few answers again pointed to the fact of many unfamiliar ingredients, but at the same time noted that this skin care products seems organic.

In a survey of the Label 3, 160 responses were divided into the *natural and organic nature* of such a product. But the rating average was higher in the case of product being natural, comparing with product being organic. More responses pointed to the fact that this product *contains a number of chemical ingredients*, which was evaluated by respondent profile, such as female in age range of 18 – 24 with middle management position with graduate degree. On average, in each category there were 12 people who had difficulty to understand what kind of the product was presented to them, who were females in the age of 18 – 24 with bachelor degree and being on intermediate management or entry level. Such a label and ingredients significantly increased desire of the 134 respondents to purchase this product, which is 74.4 percent and being females on average in the age 18 – 34 with or graduate degree on the middle management or entry level position. 3.3 percent indicated that they are not sure if they would like to purchase this product, and would have shown interest only in the case if the ingredients were explained. One respondent with sensitive skin indicated that would buy such a product because it does not contain allergens to which she/he is sensitive.

In the case of the label 4, respondents evaluated this product as more *chemical* rather than natural. The rating average difference was by only 29 units. 60 responses indicated that this product contains a *small amount of natural ingredients*. Such an evaluation was given by on average female respondent in the age 55-64 less than high school with an entry level job. On average, 38 respondents – females, in the age of 18 – 24 with bachelor degree and entry level position, representing 18.8 percent, had difficulty in evaluating such a label. Only 22.2 percent, which is 40 respondents, mostly females in the age of 18 – 34 with bachelor or graduate degree and intermediate management level position, showed willingness to purchase skin care product with such a label, which was has the lowest score

out of four previous labels. 128 respondents, which is 71.1 percent rejected the possibility of purchasing such a product for their usage. 12 people chose another response, and a few answers again pointed to the fact of many unfamiliar ingredients and all of them stated that such a product contains lots of chemicals instead of natural ingredients.

After analyzing rating average of the responses about Label 5, it was found that this spa skincare label was evaluated as *natural product with a small amount of chemical ingredients*, and the average respondent was female in the age range 55-64 with associate or bachelor degree in senior management position. Although it is necessary to admit that in approximately in average of 14.8 percent of respondents found such a label difficult to evaluate, which shows that consumers, who were females in the age range 25 – 34 with graduate degree and in an entry level position are still getting confused in regards with information on the label. 108 respondents, on average females in the age range of 25 – 34 with bachelor degree and in a position of middle management or entry level, would be willing to purchase such a product, which is 60.0 percent. It means that buyers still care about their health and make choices towards more natural skin care products.

In a survey of the Label 6, 108 responses were divided into the *natural and organic nature* of such a product. But the rating average was higher in the case of product being natural, comparing with product being organic by 4 units in rating average. More responses pointed to the fact that this product *contains a number of chemical ingredients*. This was evaluated by respondent, such as female in the age range of 35 – 54 with graduate degree and in senior management position. On average, in each category there were 36 people, which is 20 percent, who had difficulty to understand what kind of the product was presented to them. Those respondents were mostly females in the age of 25 – 34 with bachelor degree and in entry level position. Such a label and ingredients significantly decreased desire of the 76 respondents to purchase this product, which is 42.2 percent. The average profile of such as female in the age range 18 – 34, with bachelor or graduate degree and being middle or intermediate management position. Unfortunately, 53.3 percent rejected the possibility of purchasing of such a product. Also here one of respondents with sensitive skin indicated that would buy such a product because it does not contain allergens to which she/he is sensitive.

In the case of the label 7, respondents evaluated this product *strongly as natural and organic*. The rating average difference was by only 33 units. 48 responses indicated that this product contains a *small amount of chemical ingredients*. The profile of average respondent was male in the age range of 18 – 24 with associate or bachelor degree on owner or executive position. On average, 10 respondents, representing 5.5 percent, had difficulty in evaluating such a label, which was female in the age range of 24 – 34 with graduate degree in middle management position. Impressive 86.7 percent of total number of respondents, which is 156 people, showed strong willingness to purchase skin care product with such a label, which has the highest score out of six previous labels. It was reflected from responses of average respondent, who was female in the age range of 25 – 34 with bachelor degree in entry or intermediate level. Only 16 respondents, which is 8.9 percent rejected the possibility of purchasing such a product for their usage, mostly pointing out that they are allergic to one of the ingredients.

After analyzing rating average of the responses about Label 8, it was found that this skincare label was evaluated as *organic and natural product with a small amount of chemical ingredients*. The difference in rating average between organic and natural was only 7 units, and it was correctly evaluated by females in the age range of 18-24 with graduate degree and at entry level of job. Although it is necessary to admit that in approximately in average of 10.4 percent of respondents found such a label difficult to evaluate, which confirms the confusion in regards with information on the label. The profile of respondent shows that it was female in the age range of 25 – 34 with bachelor degree and being at entry or owner management level. Such a label and ingredients showed the desire of purchasing such a product in case of 104 respondents, which is 57.8 percent and who were females in the age range of 18 – 24 with graduate degree and being at entry level. Unfortunately, 33.3 percent rejected the possibility of purchasing of such a product. One of respondents pointed out that presence of sodium in the ingredient list is the reason why she/he rather would not purchase such a product.

In a survey of the Label 9, respondents, who were on average males in the age range of 45 – 54 years old with graduate degree and working at senior management level, evaluated such a product as *natural product, containing small amount of chemical ingredients*. On average, in each category there were 27 people, which is 14.9 percent, who had difficulty

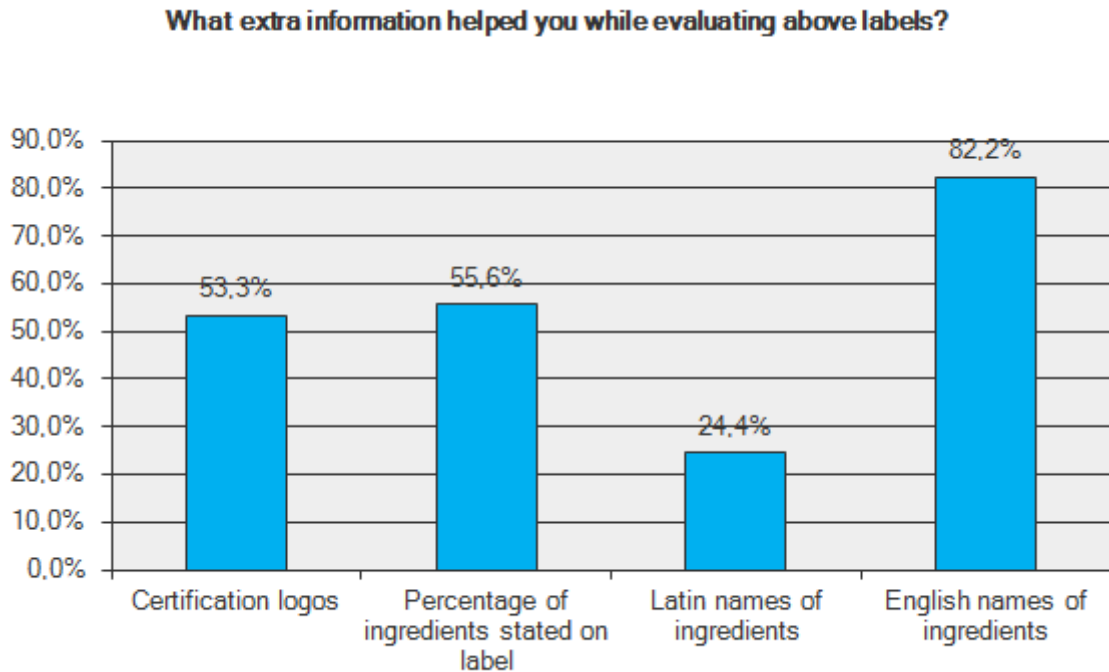
to understand what kind of the product was presented to them, represented by females in the age range 18-24 years old with less than high school and working at senior management level. Such a label showed the interest of purchasing such a product in case of 104 respondents, which is 57.8 percent, who were on average females, in the age range of 25-34 with graduate degree and working at entry level at present moment. Unfortunately, 37.8 percent rejected the possibility of purchasing of such a product. Also here, as in case of previous label, one of respondents pointed out that presence of sodium in the ingredient list is the reason why she/he rather would not purchase such a product.

After analyzing rating average of the responses about Label 10, it was found that such a skincare label was evaluated as *chemical without almost any doubts with a relatively small amount of organic and natural ingredients*. The average respondent, who evaluated such as label was female in the age range of 45-54 with less than high school at entry level job. Although it is necessary to admit that in approximately in average of 7.5 percent of respondents, which is 14 respondents, found such a label difficult to evaluate, which shows that consumers are getting confused with such a type of label, and average respondent is female in the age range of 18 – 24 with bachelor degree and working at middle management. Only 13.3 percent, which is 24 respondents, showed willingness to purchase skin care product with such a label, which was has the lowest score out of all 10 labels. The respondents who showed their willingness to purchase such a product are females in the age range of 25 -34 with bachelor degree and working at intermediate management level position. 148 respondents, which is 82.2 percent rejected the possibility of purchasing such a product for their usage. 12 people chose another response, and a few answers again pointed to the fact of parabens presence in the ingredient list.

After the evaluation of labels, the final question regarding what extra information on labels was helpful in the evaluation of skin care product nature (see Pic. 15)

In 82.2 percent of respondents, they responded that English names of ingredients were helpful in order to evaluate skin care product nature. In 53.3% and 55.6%, respondents chose certification logos and percentage of ingredients stated on label. And the least helpful factor was Latin names of the ingredients, which was chosen by 24.4%. Few respondents chose the other response and specified that it is helpful when manufacturer is

underlining if the ingredient is organic. And few respondents pointed out that they are finding customer reviews as very helpful in order to evaluate skin care product nature.



Picture 15. Separation according to extra information helpfulness.

3.3 Analysis of Three Phases

Label 1 comes from facial cream, which is manufactured by Green People - *natural and organic* skincare company with *Soil Association certified organic products*. This product contains 34.3% organic ingredients from the total number stated on label. 40.0 percent of natural ingredients, but included scent oils, which may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicant, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis. 25.7 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, and viscosity increasing agents, which are necessary for product to stay consistent. Few of such an ingredients are suspected to be environmental toxins – Cetyl Alcohol, Glyceryl Stearate, Cetearyl Alcohol. Based on the information above, author concludes that this is *organic and natural product with some amount of chemical ingredients*. It is similar to the evaluation form respondents of questionnaire survey, and such a label was evaluated as *organic product with a small amount of chemical ingredients*.

Label 2 - Pinks Boutique – is an English *natural and organic Soil Association*, and their 100% *natural and organic products natural and organic ingredients*. Their formulations are therapeutically beneficial and are free from skin irritants, hormone disrupting chemicals, harmful preservatives, artificial colours and fragrances, and genetically modified or animal-derived ingredients. During research on ingredient list this product contains 50.0% organic ingredients -skin-conditioning ingredients, which have nourishing and moisturising properties. 12.5 percent of total amount of ingredients stated in the label are natural ingredients, and all of them are scent ingredients. The rest 37.5 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, and viscosity increasing. Few preservatives were discovered - Benzyl Alcohol, Potassium Sorbate and Phenoxyethanol, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful, and, which can cause non-reproductive organ system toxicity. Based on the information above, author concludes that this is *organic product with some amount of chemical ingredients*. After analyzing survey participants responses it was found that this spa skincare label was evaluated as *organic product with a small amount of chemical ingredients*, which means that the findings based on scientific sources and customer skin care perception are the same.

Label 3 company a leading brand of *natural, vegan and organic cosmetics* and offers *Ecocert-certified organic, Cosmebio-certified natural or organic*, gluten-free products. During the analysis of ingredients by author, it was found that this product contains 72.0 percent of natural ingredients from the total number stated on label, and 28.0 percent of total number of listed ingredients are chemical substances, such as surfactants, emulsion stabilisers, pH adjuster and hydrating agent, and therefore it is *natural skin care with presence of some amount of chemicals*. In a survey, 160 responses were divided into the *natural and organic nature* of such a product, but the rating average was higher in the case of product being natural, comparing with product being organic. More responses pointed to the fact that this product *contains a number of chemical ingredients*. The finding from author and respondent perception are practically the same.

Label 4 comes from pharmaceutical business, and empowered with knowledge of *natural ingredients, current natural skin care company* the use of *natural and / or certified organic ingredients* of the highest quality; skin- and environmentally- friendly products with

clinically tested efficacy. This product contains one-third of natural ingredients from the total number stated on label, which are mostly skin-conditioning ingredients. The rest 66.67 percent of total number of listed ingredients are surfactants, emulsion stabilisers, skin-conditioning, antimicrobial, viscosity increasing agents. Based on the information above, author concludes that this *is chemical skin care product with some amount of natural ingredients*. It is same to the evaluation form respondents of questionnaire survey, where in the case of the label 4, respondents evaluated this product as more *chemical* rather than natural with indication that this product contains a *small amount of natural ingredients*.

Label 5 JustBe botanicals is a Scottish botanical skin care company using purely *natural ingredients*. This product contains 64.3 percent natural ingredients from the total number stated on label. 35.7 percents of total number of listed ingredients are chemical surfactants and emulsion stabilisers, which are necessary for product to stay consistent. Based on this information, author considered this product as *natural with a small amount of chemical ingredients*. Also major number of respondents found such a product as *natural product with a small amount of chemical ingredients*.

Label 6 driven by the passionate belief that health and beauty should be *more natural*, less synthetic, The company F *never tests its products on animals*. Although this company has *Soil Association certification*, they are mentioning that they may not be able to avoid all of chemicals, but they believe it makes sense to do what they can to minimise contact wherever possible. This product contains 36.0 percent of organic ingredients from the total number stated on label, 34.8 percent of total amount of ingredients stated in the label are natural ingredients, and 29.2 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, and viscosity increasing ingredients. Such an information gives an opportunity to perceive this skin care *as natural and organic with some amount of chemical ingredients*. In a survey of the Label 6, 108 responses were divided into the *natural and organic nature* of such a product. But the rating average was higher in the case of product being natural, comparing with product being organic by 4 units in rating average. More responses pointed to the fact that this product *contains a number of chemical ingredients*.

Label 7 an American company established almost eight years ago and is focusing its attention on the *natural products* and focusing its attention on the people with allergies, skin sensitivities and various autoimmune skin conditions. Also on the company website the information regarding synthetics and chemical substances is shared, which is pointing out that company is using *100% food-grade organic* ingredients. This product contains 63.6 percent of organic ingredients and 18.2 percent natural ingredients from the total number stated on label. 22.2 percents of total number of listed ingredients are preservative and antioxidant. Based on the information above, author concludes that this is *organic product with some amount of chemical ingredients*. In the case of the label 7, respondents evaluated this product *strongly as natural and organic*. 48 responses indicated that this product contains a *small amount of chemical ingredients*. And therefore scientifically based result is the same as respondent perception.

Label 8 German skin care company with 25 years of experience in skin care industry, which is using *fresh plants and certified organic Aloe Vera* as a foundation of their creams and lotions. a In the manufacturing process, this company is avoiding substances such as alcohol, citric acid, parabens, mineral oils and genetically modified plants and using plant extracts with known therapeutic effect. Company is claiming that is *100% natural*, with rich active ingredients and is *not tested on animals*. This product contains 44.0 percent of organic ingredients from the total number stated on label, which were mostly skin-conditioning and fragrance ingredients. 50.0 percent of total amount of ingredients stated in the label are natural ingredients. The rest 6 percent of total number of listed ingredients is preservative – sodium benzoate, which has limited evidence on organ toxicity. This product considered as *natural and organic with small amount of chemical ingredients*. After analyzing rating average of the responses about Label 8, it was found that this spa skincare label was evaluated as *organic and natural product with a small amount of chemical ingredients*. There is no difference in the findings, author and respondents evaluated equally.

Label 9 an American *natural skin care* product company with the knowledge of the flora, fauna, mineral and chemical elements is used to create each product. The goal was to take skin care beyond the expected, to use technology, which makes them cosmeceutics. Their skin care product contains 54.5 percent natural ingredients, and 45.5 percent of total

number of listed ingredients are chemical surfactants and emulsion stabilisers, which are necessary for product to stay consistent. Such a product considered as natural with some amount of chemical ingredients. In a survey of the Label 9, respondents evaluated such a product as *natural product, containing small amount of chemical ingredients*.

Label 10 an English skin care company, which as it was mentioned before *has no relation to the spa industry natural skin care manufacturer* itself as *green company* which is producing *natural skin care* with finest raw ingredients, *without testing on animals*. This label was necessary in the questionnaire survey as a comparable label in order to evaluate how the majority of respondents will evaluate such a label. This product contains 34.4 percent natural ingredients from the total number stated on label and 65.6 percent of total number of listed ingredients are chemical surfactants, emulsion stabilisers, viscosity increasing ingredients, preservatives. Author findings are shown that such a skin care product is *chemical with some amount of natural ingredients*. After analyzing rating average of the responses about Label 10, it was found that such a skincare label was evaluated as *chemical without almost any doubts with a relatively small amount of organic and natural ingredients*.

4 SUMMARY OF FINDINGS

Widely accepted that the cosmetic product contains ingredients, according to the Cosmetic Directive and the Cosmetic Products Safety Regulations, with the main purpose of cleaning, perfuming, changing appearance, correcting body odour, protecting, and keeping in good condition, and is applied to epidermis (upper skin layer), hair system, nails, lips, external genital organs, teeth, mucous membrane of the oral cavity. But in the frames of definition what is natural skin care and what is organic skin care author faced an enormous number of confusing literature and definitions, which is pointing that but there is a lack of official and valid definition and regulation concerning the natural, ecological or organic skin care. In case of natural skin care, the ingredients should be derived from plants, a small amount of animal-derived components is allowed to be used, and permitted percentage of additional components is higher than in organic skin care products. Organic skin care products must meet more strict requirements: during their production the use of components of animal origin is not acceptable, the percentage of additional substances shall not exceed 5%, severe restrictions also apply to raw materials, water and environmental protection.

Nowadays, green marketing is flourishing, and well as flourishing “green” marketing. The aim of green marketing is to create awareness about the environmental issues and help consumers to understand how they can contribute to the environment, and it is focused less on individual welfare comparing with traditional marketing. The product perceived green only if it is made with recycled waste content; contain natural resources; avoids toxic emissions; saves energy or water; contributes to a safe, healthy built environment.

In the case of chosen 10 skin care products sold at spas companies, 100 percent of them promoted as green companies, producing natural and/or organic skin care products, as well as mentioning environmental strategies by using degradable or recycled containers for their production. Also they are underlining their strategy of not using chemical substances in their manufacturing process, and usually the marketing puts emphasis on ingredients that products do not contain, such as sodium lauryl sulphate (SLS), parabens, phthalates,

petrochemicals, alcohol (ethanol), synthetic fragrances, colorants and in general skin irritants, hormone disrupting chemicals, harmful preservatives, artificial colours and fragrances, and genetically modified or animal-derived ingredients and as one of the companies also mentioning that “if you can’t eat it, you should not apply it on your skin”. Another company suggests looking for certification logos, or checking that organic ingredients are clearly and individually indicated on the ingredients list.

Although all companies claimed that they are promoted as green companies, producing natural and/or organic skin care products, and at the most cases mentioning that they are not using alcohol (ethanol), synthetic fragrances, colorants and in general skin irritants, hormone disrupting chemicals, harmful preservatives, artificial colours and fragrances, and genetically modified or animal-derived ingredients. Most of skin care products had scent agents in their ingredient list and it is important to admit, that usage of scents may irritate respiratory system, eyes, skin or lungs, as well as being possible human immune system toxicants, which means that they can cause systematic and localized allergic reactions, such as contact dermatitis. As well as Geraniol is a subject to restrictions in some countries. Limonene has to be used carefully, and creams containing such an ingredient should not be exposed directly to sunlight and air, due to Limonene degradation process and converting into oxidation products, which can act as skin and respiratory irritants. The fragrance ingredient Petitgrain Oil is the subject to restrictions in the International Fragrance Association. Alpha-Methyl Ionone is naturally or synthetically produced scent chemical, which in some countries is recommended restricted or already banned in cosmetics. It is possible human immune system toxicant or allergen as well as suspected to be an environmental toxin. Also scent agent Butylphenyl Methylpropional and UV light absorbent Benzyl Salicylate showing allergic reactions and endocrine disruption. Other chemical Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde, which is perfuming agent is restricted in cosmetics. Also it has been discovered that some products had preservatives in the content, for instance Benzyl Alcohol, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful; Sorbic Acid, which can cause non-reproductive organ system toxicity, Sorbate and Phenoxyethanol, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful, and, which can cause non-reproductive organ system toxicity; Dehydracetic Acid, which can cause contact allergy, immunotoxicity, and classified as expected to be toxic and harmful and can

cause non-reproductive organ system toxicity; Benzyl Benzoate is associated with allergies and contact dermatitis and endocrine disruption, which will disturb organism normal functioning. The colorant and sunscreen agent Zinc Oxide is an inorganic oxide which can bioaccumulating in the body and create non-reproductive organ system toxicity. While researching ingredients, there was some confusing with the name of ingredient. It was stated Citrus Aurantium (Neroli) Flower Oil and in pharmacognosy there is Citrus Aurantium Flower Extract, which is Bitter Orange Extract or Citrus Amara Flower Extract, which is Neroli Flower Extract. Few products had lanolin in their ingredients, which is animal derived substance, and is a refined derivative of the fat-like sebaceous secretion of sheep, which is used as emulsion stabilizer and skin protectant. One of skin care products, which was manufactured by company promoting itself as a natural and is not used at spa, had full range of chemical ingredients, such as toxicants or human skin allergens, such as triethanolamine, glyceryl stearate, phenoxyethanol, steareth-2, steareth-21. Few ingredients are restricted for use in cosmetics, such as methyl-, butyl-, ethyl-, isobutylparabens. Monoazo colorant – CI 14700 is also found unsafe for use in cosmetics. As well as Alpha-Isomethyl Ionone – fragrance ingredient is restricted for use in cosmetics.

By the requirements of Directive 76/768/EC guidelines, the labels of cosmetic products contain a mix of advertising information, statements and ingredients included, as well certification logo, if product is certified. Certification label or logo informs the consumer on the type of production and ingredient pattern, as well as environmental sustainability and are influencing their purchase decision making.

During analysing questionnaire results and researching willingness to purchase evaluated skin care product, it was found that respondents would like to purchase natural and/or organic product more likely than chemical products. In average, 66.9 percent of respondents willing to purchase natural and/or organic products, based on their judgement of the label. There are two natural skincare product labels, which scored the highest purchase willingness percent, label 3 and label 7, 74.4 percent and 86.7 percent respectively.

When it comes to ingredients, there are three main categories: active ingredients, which have a therapeutic, repairing, calming or other effect; additives, which are used by

formulators to modify the appearance of a product or to correct certain unwanted effects and excipients, which give the finished product the desired consistency and enable application of the active ingredient. And here restrictions are set, what are creating some difficulties for manufacturer. After researching every ingredient and its properties from 10 skin care product labels, there were conclusions made up and they were compared with the evaluation from questionnaire survey respondents. In case of label 1, author concludes that it was *organic and natural product with some amount of chemical ingredients*, which was similar to the evaluation from respondents of questionnaire survey, and such a label was evaluated as *organic product with a small amount of chemical ingredients*. Based on the information about ingredients, author concluded that label 7 is *organic product with some amount of chemical ingredients*. Respondents evaluated this product *strongly as natural and organic with a small amount of chemical ingredients*, and therefore findings from Phase Two and Three are similar as respondent perception. In case of label 10, author concluded that such a skin care product is *chemical with some amount of natural ingredients* and after analyzing rating average of the responses about Label 10, label was evaluated as *chemical without almost any doubts with a relatively small amount of organic and natural ingredients*. Other labels scientific and respondent evaluation was the same, which allows to summarize that average consumer has enough knowledge and understanding of ingredients, in case of closer examination and time for such a labels.

Although it is necessary to admit that in approximately in average of 11.7 percent of respondents found such a label difficult to evaluate, which shows that some percent consumers are still confused in regards with the information on the label. There were two labels where the most consumers were confused, label 4 with 38 respondents, representing 18.8 percent and label 6 with 36 respondents, representing 20 percent.

5. CONCLUSIONS AND IMPLICATIONS

The aim of this thesis is to research if spa skin care labels are not easily understandable for the average consumer and the outcome of the thesis is lead by the aim to give recommendations for the spa skin care product manufacturers how to improve spa skin care labels that they will be easily understandable and therefore may lead to the consumer positive purchase decision. To approve or disapprove such a hypothesis, author analysed companies marketing information, their spa skin care label information interpretation using skin care scientific data base, and the findings for questionnaire survey results.

The reason of choosing such a hypothesis is hidden in the wellness and spa industry because spas are seen as part of our lives and overall wellness lifestyle due to relaxation and relief of stress and body tense. Wellness is focusing on minimizing on the effects of the three dimensions of stress and one of them is chemical stress, which caused not only by toxicity of the body, but external chemical influence as well.

When it comes to spa industry, often when visiting the spa, the purchase of spa skin care product is made. In the frames of this research, 28.9 percent of 180 respondents purchased spa skin care product, and in 50 percent of purchases it was natural and/or organic skin care product. In recent years, it is trend of increase in sales of natural and organic skin care worldwide in retail stores and spas.

According to findings, author is disapproving the hypothesis of this research, and it is concluding that spa skin care labels are understandable for the average consumer. Although spa skin care labels were understood and correctly evaluated regarding natural, organic or chemical nature of the product in average 88.3 percent, it is necessary to admit that in approximately in average of 11.7 percent of respondents found such a label difficult to evaluate, which shows that some percent consumers are still confused in regards with the information on the label.

This study is serving the main goal for spa skin care product marketing professionals. Some manufacturers are developing new labels to distinguish themselves from other

brands in the cosmetic market, as well as increase the perception and understanding their spa skin care product label by average consumer, and such an understanding will lead to increased purchase decision-making and therefore increased sales at spa and spa retail stores. And the most understandable skin care product labels were where ingredients were listed in English language with Latin general name included in brackets, certification logos, cruelty free and vegan certification and divided main ingredients and essential oils. And would be also good adjustment to such a labels type for manufacturer, according to the respondents comments, is specify whether they have natural or organic origin. Unfortunately, in a real purchase environment, consumers do have limited time to make a purchase decision and pay attention to label and read all information, in contrast to the absence of a time restriction in present thesis questionnaire.

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APPENDICES

Appendix 1. Spa skin care product label information perception questionnaire survey

Dear survey participant!

My name is Marina, I am student of the University of Tartu at Master level and currently undertaking research on spa skin care label information perception.

In this 10-20 minutes survey you will find questions about your profile and spa skin care products label information. All answers will be analyzed and used in the Master dissertation research.

Thank you for your time!

1. Are you male or female?

Male

Female

2. What is your age?

18 to 24

25 to 34

35 to 44

45 to 54

55 to 64

3. What is the highest level of school you have completed or the highest degree you have received?

Less than high school degree

High school degree or equivalent

Some college but no degree

Associate degree

Bachelor degree

Graduate degree

4. Which of the following best describes your current job level?

Owner/Executive/C-level

Senior Management

Middle Management

Intermediate

Entry Level

5. Did you purchase any spa skin care products at spa in the past 6 months?

Yes

No

6. If yes, was it natural and/or organic spa skin care product?

Yes

No

N/A

7. When choosing natural and/or organic skin care products, which of the following factors matter to you? (Check all that apply)

Product ingredients

Manufacturer statements, such as natural or organic

Natural and/or organic certification

Packaging

No testing on animals

Price

Brand

Friends recommendation

Salespersons recommendation

Other (please specify)

In the next 10 pages you will need to evaluate 10 spa skin care products label information

Label 1.

Anti-ageing cream with 89.9% certified organically grown ingredients

INGREDIENTS:

AQUA, BUTYROSPERMUM PARKII BUTTER** HELIANTHUS ANNUUS SEED OIL*, OLEA EUROPAEA FRUIT OIL*, GLYCERIN*, SQUALANE, CETYL ALCOHOL, CETEARYL GLUCOSIDE, CETEARYL ALCOHOL, ELAEIS GUINEENSIS OIL**, SIMMONDSIA CHINENSIS SEED OIL*, GLYCERYL STEARATE, ALOE BARBADENSIS LEAF JUICE POWDER*, PERILLA FRUTESCENS SEED OIL*, OENOTHERA BIENNIS SEED OIL*, PERSEA GRATISSIMA OIL*, BAICALIN, ROSMARINUS OFFICINALIS LEAF EXTRACT*, CAMELLIA SINENSIS LEAF EXTRACT*, ALTHAEA OFFICINALIS ROOT EXTRACT*, PERSEA GRATISSIMA OIL UNSAPONIFIABLES, PROPANEDIOL, AROMA [PELARGONIUM GRAVEOLENS OIL**, SANTALUM AUSTROCALEDONICUM WOOD OIL*], HYDROLYSED JOJOBA ESTERS, FUCUS VESICULOSUS EXTRACT, SODIUM STEAROYL GLUTAMATE, CITRIC ACID, BENZYL ALCOHOL, SALICYLIC ACID, SORBIC ACID, LIMONENE*, LINALOOL*, CITRAL*, CITRONELLOL*, GERANIOL*. *89.9% ORGANIC. **FAIRLY TRADED.



8. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

9. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 2.

Moisturising cream with 91% organic ingredients

INGREDIENTS:

AQUA, HELIANTHUS ANNUUS (SUNFLOWER) SEED OIL*, BUTYROSPERMUM PARKII (SHEA) BUTTER*, THEOBROMA CACAO (COCOA) SEED BUTTER*, CERA ALBA*, GLYCERIN***, COCO-GLUCOSIDE, GLYCERYL STEARATE, SUCROSE STEARATE, COCONUT ALCOHOL, OLEA EUROPAEA (OLIVE) FRUIT OIL*, LINUM USITATISSIMUM SEED OIL*, ALOE BARBADENSIS LEAF JUICE POWDER*, CAMELLIA SINENSIS LEAF EXTRACT*, PHENOXYETHANOL, POTASSIUM SORBATE, TOCOPHEROL, XANTHAN GUM, LACTIC ACID, BENZYL ALCOHOL, PARFUM*; CITRUS NOBILIS (MANDARIN ORANGE) PEEL OIL*, CYMBOPOGON FLEXUOSUS (LEMONGRASS) OIL*, CITRAL**, GERANIOL**, LIMONENE**. (*CERTIFIED ORGANIC. **NATURAL CONSTITUENTS OF ESSENTIAL OILS. ***ORGANIC ORIGIN.)



10. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

11. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 3.

Facial Moisturizer

INGREDIENTS:

Aloe Leaf Juice (Barbadensis), Cetearyl Olivat, Sorbitan Olivat, Macadamia Seed Oil (Ternifolia), Dehydracetic Acid and Benzyl Alcohol, Glyceryl Stearate, , Babaçu Seed Oil(Orbignya Oleifera),PCA Na, Cocoa Seed Butter(Theobroma Cacao),), Cupuaçu Seed Butter (Theobroma Grandiflorum). ESSENTIAL OIL: Eucalyptus (Globulus), Eucalyptus (Citiodora), Citronella (Cymbopogon Winterianus),Orange(Citrus Aurantium), Cassia (Cinnamomum Cassia), Ylang Ylang (Canaga Odorata), Styrix Tonkinensis Gum, Juniper (JUniperus Virginiana), Vegetable Glycerin,Uccuba (Virola Sebifera) Nut Butter, Acerola Fruit Extract (Malpighia Glabra) with Desxtrin, Sodium Hydroxide, Preciosa Essential Oil (Aniba Canelila).



12. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

13. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 4.

Moisturising and brightening cream with 96.8% natural content

INGREDIENTS:

Aqua/Water/Eau, Glycerin, Dicaprylyl Ether, Dicaprylyl Carbonate, Alcohol Denat, Isoamyl Laurate, Aloe Barbadensis Leaf Juice, Cetearyl Alcohol, Glyceryl Stearate Citrate, Simmondsia Chinensis (Jojoba) Seed Oil, Distarch Phosphate, Imperata Cylindrica Root Extract, Acrylates/C10-30 Alkyl Acrylate Crosspolymer, Alpha-Methyl Ionone, Ascorbyl Palmitate, Ascorbyl Tetraisopalmitate, Benzyl Alcohol, Benzyl Benzoate, Benzyl Salicylate, Butylphenyl Methylpropional, Caprylyl Glycol, Carbomer, Citronellol, Eugenol, Geraniol, Glyceryl Caprylate, Glyceryl Stearate, Helianthus Annuus (Sunflower) Seed Oil, Hexyl Cinnamal, Hydrolyzed Sodium Hyaluronate, Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde, Lecithin, Parfum (Fragrance), Phenoxyethanol, Rosa Canina Fruit Extract, Rosa Canina Fruit Oil, Rosa Moschata Seed Oil, Rosa Rubiginosa Seed Oil, Salix Alba (Willow) Bark Extract, Sodium Hydroxide, Tetrahydrodiferuloylmethane, Tetrasodium Glutamate Diacetate, Tocopherol, Tocopheryl Acetate.

14. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

15. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 5. Restoring Cream

INGREDIENTS:

Water (Aqua), Caprylic/Capric Triglycerides, Andiroba Oil (Carapa Guianensis), Coconut Oil (Cocos Nucifera), Zinc Oxide, Sesame Seed Oil (Sesamum Indicum), Self Heal Extract (Prunella Vulgaris), Oat (Avena Sativa Glucan), Oat Extract (Avena Sativa), Xanthan Gum, Cucumber Extract (Cucumis Sativus), Sodium Levulinate, Sodium Anisate, Glyceryl Behenate, Geranium Oil (Pelargonium Graveolens) and Petitgrain Oil (Citrus Aurantium).

16. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

17. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 6.

Purifying Daily Moisture

INGREDIENTS:

Aqua (Water), Cetyl alcohol, Sucrose stearate, Glycerin*, Epilobium fleischeri (Alpine willowherb) extract*, Galium aparine (Cleavers) extract*, Cymbopogon martinii (Palmarosa) herb oil*, Canarium luzonicum (Elemi) gum oil, Citrus limonum (Lemon) peel oil expressed*, Citrus aurantium (Neroli) flower oil*, Boswellia carterii (Frankincense) oil, Melissa officinalis (Lemon balm) leaf oil*, Melaleuca alternifolia (Tea tree) leaf oil*, Coriandrum sativum (Coriander) fruit oil*, Cetearyl olivate, Sorbitan olivate, Potassium sorbate, Sodium hyaluronate, Xanthan gum, Levulinic acid, *Citral*, *Citronellol*, *Geraniol*, *Farnesol*, *Limonene*, *Linalool*. *Organically produced ingredient.

18. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

19. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 7.

Face cream

INGREDIENTS:

Purified water; organic cold-pressed vegetable oils; organic & wild harvested herbs of calendula, elder, hollyhock, rose petals, self heal, chickweed, lavender; lanolin; beeswax; colloidal silver & gold; vitamin e; lavender essential oils

20. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

21. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 8. Rich intensive cream

INGREDIENTS:

42%: Aloe Barbadensis - of natural organic aloe vera fresh juice - aloe vera L. (certified organic), 58%: persea gratissima, Simmonsia chinensis (from organic cultivation), olea europaea (from organic cultivation), lanolin, pink damascena, cera alba (certified organic), Butyrospermum Parkii Butter (from organic cultivation), theobroma cacao (from organic cultivation), aqua rosa damascena (from organic cultivation), sodium benzoate, citral, citronellol, eugenol, geraniol, linalool.

22. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

23. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 9.

Facial moisturizer

INGREDIENTS:

Purified Water (Aqua), Aloe Vera Gel, Barbadenis Leaf Extract, Rhatany Root Extract, Green Tea, Caprylic/Capric Triglycerides, Rice Bran Oil, Sesame Seed Oil, Vitamin E, Linoleate, Wild Pansy Extract, Micronized Titanium Dioxide, Comfrey Root, Dexapanthanol, Hyaluronic Acid, Grape Seed Extract, Licorice Root Extract, Sodium PCA, Alpha Bisabolol, Allantoin, Plantain, Beta Glucan, Pycnogenol, Riboflavin, Fruit Extracts.

24. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

25. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

Label 10.

Mousturizing cream

INGREDIENTS:

Aqua (Water), Isopropyl Palmitate, Glycerin, Butyrospermum parkii (Shea Butter), Mica, Sorbitol, Triethanolamine, Caprylic/Capric Triglyceride, Cera Alba (Beeswax), Glyceryl Stearate, PEG-100 Stearate, Carbomer, Phenoxyethanol, Steareth-2, Steareth-21, Tocopheryl Acetate, Methylparaben, Disodium EDTA, Parfum, Butylparaben, Ethylparaben, Isobutylparaben, Propylparaben, Citronellol, Alpha-Isomethyl Ionone, Linalool, Geraniol, Limonene, Citral, Benzyl Alcohol, Eugenol, Farnesol, CI 77891, CI 14700.



26. Evaluating the label above, would you consider this spa skin care product as:

	Difficult to understand	Disagree	Disagree rather than agree	Agree rather than disagree	Agree
Organic					
Natural					
Chemical					
Contains small amount of organic ingredients					
Contains small amount of natural ingredients					
Contains small amount of chemical ingredients					

27. Would you purchase spa skin care product with such a label?

Yes

No

Other (please specify)

28. What extra information helped you while evaluating above labels?

Certification logos

Percentage of ingredients stated on label

Latin names of ingredients

English names of ingredients

Other (please specify)

Thank you!

Appendix 2. The labels ingredients analysis

Tab.1 The analysis of ingredients list in the skin care label 1.

Origin	Ingredient	Properties
Organic 34.3%	Helianthus annuus seed oil	Sunflower oil – skin-conditioning agent
	Olea europaea fruit oil	Olive oil – skin-conditioning agent
	Glycerin	(Glycerol) vegetable origin – denaturant, humectant, skin-conditioning agent, skin protectant, viscosity decreasing agent.
	Simmondsia chinensis seed oil	Jobba oil - skin-conditioning agent
	Aloe barbadensis leaf juice powder	Aloe leaf juice powder - skin-conditioning agent
	Perilla frutescens seed oil	Shiso fruit oil - skin-conditioning agent
	Oenothera biennis seed oil	Evening primrose seed oil - skin-conditioning agent, antioxidant
	Persea gratissima oil	Avocado oil - skin-conditioning agent
	Rosmarinus officinalis leaf extract	Rosemary leaf extract – antimicrobial agent, antioxidant, fragrance ingredients, skin-conditioning agent.
	Camellia sinensis leaf extract	Green tea leaf extract – antioxidant
	Althaea officinalis root extract	Marshmallow root extract - skin-conditioning agent
	Santalum austrocaledonicum wood oil	Sandalwood oil - fragrance ingredient
Natural 40.0%	Butyrospermum parkii butter	Shea butter – skin-conditioning agent
	Squalane	Naturally occurring lipid in both plants and animals - skin-conditioning agent
	Elaeis guineensis oil	Palm oil - skin-conditioning agent
	Baicalin	Natural flavonoid, antioxidant, skin-conditioning agent, anti-inflammatory, no restrictions
	Persea gratissima oil unsaponifiables	Avocado fractionated oil - skin-conditioning agent
	Pelargonium graveolens oil	Rose geranium oil – fragrance ingredient
	Hydrolysed Jojoba esters	Jojoba esters - fragrance ingredient
	Fucus vesiculosus extract	Bladder Wrack extract – fragrance ingredient
	Citric acid	an alpha hydroxy acid, adjust the acidity, naturally found in citric fruits and juices; chelating agent, fragrance ingredient, pH adjuster.
	Limonene	Scent ingredient; <i>moderate hazard - upon storage and exposure to sunlight and air degrades to various oxidation products which act as skin and respiratory irritants and sensitizers, irritate skin, eyes or lungs, possible human immune system toxicant or allergen.</i>
	Citral	Synthetically manufactured; <i>associated with allergies and contact dermatitis</i>
	Linalool	Scent ingredient; <i>moderate hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
	Citronellol	Scent ingredient; <i>moderate hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
	Geraniol	Naturally occurring scent ingredient found in various essential oils such as rose oil and citronella oil, fragrance subject to restrictions: safe only if satisfies manufacturing specifications or purity limits, according to industry safety panel (International Fragrance Association), possible human immune system toxicant or allergen, suspected to be an environmental toxin.
Chemical 125.7%	Cetyl alcohol	organic alcohol; surfactant, emulsion stabilizer, viscosity increasing agent; <i>organ system toxicity (non-reproductive), suspected to be an environmental toxin</i>
	Cetearyl glucoside	Surfactant, emulsifier.
	Cetearyl alcohol	A mixture of cetyl and stearyl alcohols; emulsion stabilizer, surfactant, viscosity increasing agent; <i>suspected to be an environmental toxin.</i>
	Glyceryl stearate	composed of naturally occurring lipid ingredients glycerol and stearic acid; fragrance ingredient, skin-conditioning agent, surfactant; <i>suspected to be an environmental toxin</i>
	Sodium stearoyl glutamate	skin-conditioning agent, surfactant; <i>low irritation to skin, eye, may be hazardous to environment.</i>
	Benzyl alcohol	Synthetically manufactured; solvent, preservative; <i>associated with contact allergy, immunotoxicity, classified as expected to be toxic or harmful.</i>
	Salicylic acid	Synthetically manufactured; antiacne agent; denaturant; exfoliant, penetration enhancer; <i>irritation (skin, eyes, or lungs), enhanced skin absorption</i>
	Sorbic acid	Synthetically manufactured; preservative, fragrance ingredient; <i>organ system toxicity (non-reproductive)</i>
	Propandediol	Solvent, viscosity decreasing agent, viscosity controlling agent; <i>low hazard, may irritate skin, eyes or lungs.</i>

Tab 2. The analysis of ingredients list in the skin care label 2.

Origin	Ingredient	Properties
Organic 50.0%	Helianthus annuus seed oil	Sunflower oil – skin-conditioning agent
	Butyrospermum parkii butter	Shea butter – skin-conditioning agent
	Theobroma cacao seed butter	Cocoa butter – fragrance ingredient, skin-conditioning agent, skin protectant
	Cera alba	Beeswax – binder, emulsion stabilizer, fragrance ingredient, skin-conditioning agent
	Coco-glucoside	Non-ionic surfactant, foaming agent, conditioner or emulsifier; <i>hazardous, causes skin irritation, causes serious eye damage.</i>
	Glycerin	(Glycerol) vegetable origin – denaturant, humectant, skin-conditioning agent, skin protectant, viscosity decreasing agent.
	Olea europaea fruit oil	Olive oil – skin-conditioning agent
	Linum usitatissimum seed oil	Linseed oil – fragrance ingredient, skin-conditioning agent
	Aloe barbadensis leaf juice powder	Aloe leaf juice powder - skin-conditioning agent
	Camellia sinensis leaf extract	Green tea leaf extract – antioxidant
	Citrus nobilis peel oil	Mandarin orange peel oil – fragrance ingredient; <i>banned or found unsafe for use in cosmetics, organ system toxicity (non-reproductive)</i>
	Cymbopogon flexuosus oil	Lemongrass oil – fragrance ingredient
Natural 12.5%	Citral	Naturally occurring scent ingredient; manufactured synthetically on a large scale; associated with allergies and contact dermatitis
	Geraniol	Naturally occurring scent ingredient found in various essential oils such as rose oil and citronella oil, <i>fragrance subject to restrictions: safe only if satisfies manufacturing specifications or purity limits, according to industry safety panel (International Fragrance Association), possible human immune system toxicant or allergen, suspected to be an environmental toxin.</i>
	Limonene	Scent ingredient; <i>moderate hazard - upon storage and exposure to sunlight and air degrades to various oxidation products which act as skin and respiratory irritants and sensitizers, irritate skin, eyes or lungs, possible human immune system toxicant or allergen.</i>
Chemical 37.5%	Glyceryl stearate	Composed of naturally occurring lipid ingredients glycerol and stearic acid, fragrance ingredient; skin-conditioning agent, surfactant; <i>suspected to be an environmental toxin</i>
	Sucrose stearate	Monoester of stearic acid and sucrose; skin-conditioning agent, surfactant.
	Coconut alcohol	Mixture of fatty alcohols derived from Coconut Acid; emulsion stabilizer; surfactant, viscosity increasing agent.
	Phenoxyethanol	Preservative; <i>Skin, eyes, or lungs irritation, organ system toxicity (non-reproductive)</i>
	Potassium sorbate	Preservative; <i>Organ system toxicity (non-reproductive)</i>
	Tocopherol	Naturally occurring chemical compounds related to Vitamin E; antioxidant; skin-conditioning agent; <i>tumor formation at high doses</i>
	Xanthan gum	Polysaccharide, a sugar-based polymer produced by bacteria; viscosity agent
	Lactic acid	An alpha hydroxy acid; naturally produced in the process of bacterial fermentation; exfoliant, fragrance ingredient; humectant; pH adjuster; skin-conditioning agent
	Benzyl alcohol	Synthetically manufactured; solvent, preservative; <i>associated with contact allergy, immunotoxicity, classified as expected to be toxic or harmful.</i>

Tab.3 The analysis of ingredients list in the skin care label 3.

Origin	Ingredient	Properties
Natural – 72.0%	Aloe Leaf Juice (Barbadensis),	Skin-conditioning agent
	Macadamia Seed Oil (Ternifolia)	Skin-conditioning agent
	Babassu Seed Oil (Orbignya Oleifera)	Skin-conditioning agent
	Cocoa Seed Butter (Theobroma Cacao)	Skin-conditioning agent
	Cupuaçu Seed Butter (Theobroma Grandiflorum)	Skin-conditioning agent, Antioxidant
	Eucalyptus (Globulus)	Eucalyptus Leaf Oil - Fragrance Ingredient; Skin-Conditioning Agent
	Eucalyptus (Citiodora)	Fragrance Ingredient
	Citronella (Cymbopogon Winterianus)	Lemongrass Oil - Fragrance Ingredient
	Orange(Citrus Aurantium)	Fragrance Ingredient
	Cassia (Cinnamomum Cassia)	Cinnamon bark – skin conditioning; <i>known human toxicant or allergen.</i>
	Ylang Ylang (Canaga Odorata)	Fragrance Ingredient
	Styrix Tonkinensis Gum	Natural ingredient; healing disinfectant, antiseptic
	Juniper (Juniperus Virginiana)	Fragrance Ingredient; <i>expected to be toxic or harmful, an environmental toxin and be persistent or bioaccumulative</i>
	Vegetable Glycerin	(Glycerol) vegetable origin – denaturant, humectant, skin-conditioning agent, skin protectant, viscosity decreasing agent.
	Uccuba (Virola Sebifera)	Skin-conditioning agent
	Nut Butter	Skin-conditioning agent
	Acerola Fruit Extract (Malpighia Glabra) with Desxtrin	Skin-conditioning agent
	Preciosa Essential Oil (Aniba Canelila)	Fragrance
Chemical – 28.0%	Cetearyl Oliviate	Cetearyl alcohol and fatty acids derived from olive oil; skin-conditioning agent
	Sorbitan Oliviate	Surfactant based on olive oil and sorbitol.
	Dehydracetic Acid	Synthetic preservative; <i>Organ system toxicity (non-reproductive)</i>
	Benzyl Alcohol	Synthetically manufactured; solvent, preservative; <i>associated with contact allergy, immunotoxicity, classified as expected to be toxic or harmful.</i>
	Glyceryl Stearate	Composed of naturally occurring lipid ingredients glycerol and stearic acid; fragrance ingredient, skin-conditioning agent, surfactant; <i>suspected to be an environmental toxin</i>
	PCA Na	Carboxylic pirrolidon acid sodium salt; hydration, emolient.
	Sodium Hydroxide	Highly caustic and reactive inorganic base; Denaturant; pH Adjuster; <i>Organ system toxicity (non-reproductive), Irritation (skin, eyes, or lungs), Occupational hazards</i>

Tab.4 The analysis of ingredients list in the skin care label 4.

Origin	Ingredient	Properties
Natural 33.33%	Glycerin	Glycerol) vegetable origin – denaturant, humectant, skin-conditioning agent, skin protectant, viscosity decreasing agent
	Aloe Barbadensis Leaf Juice	Skin-conditioning agent
	Simmondsia Chinensis (Jojoba) Seed Oil	Skin-conditioning agent
	Imperata Cylindrica Root Extract	Skin-conditioning agent
	Citronellol	Scent ingredient; moderate hazard, subject to restrictions, possible human immune system toxicant or allergen.
	Eugenol	Naturally occurring scent chemical found in clove oil; <i>Has been associated with allergies and contact dermatitis.</i>
	Geraniol	Naturally occurring scent ingredient found in various essential oils such as rose oil and citronella oil, <i>fragrance subject to restrictions: safe only if satisfies manufacturing specifications or purity limits, according to industry safety panel (International Fragrance Association), possible human immune system toxicant or allergen, suspected to be an environmental toxin.</i>
	Helianthus Annuus (Sunflower) Seed Oil	Sunflower oil – skin-conditioning agent
	Lecithin	Lecithin is a naturally occurring lipid found in both plants and animals, Skin-Conditioning Agent, Surfactant - Emulsifying Agent; Enhanced skin absorption
	Rosa Canina Fruit Extract	Extract of dog rose hips, skin-conditioning agent
	Rosa Canina Fruit Oil	Oil derived from rose hips, Skin-Conditioning Agent.
	Rosa Moschata Seed Oil	Skin-Conditioning Agent – Emollient
	Rosa Rubiginosa Seed Oil	Oil expressed from the seeds of Rosa rubiginosa, Skin-Conditioning Agent
	Salix Alba (Willow) Bark Extract.	Extract of the bark of the white willow, Skin-Conditioning Agent, Soothing
Chemical 66.67%	Dicaprylyl Ether	Skin-Conditioning Agent – Emollient
	Dicaprylyl Carbonate	Diester of carbonic acid and caprylyl alcohol; skin-Conditioning Agent - Emollient;
	Alcohol Denat	Denatured alcohol is a mixture of ethanol (ethyl alcohol) with a denaturing agent, Antifoaming, antimicrobial; <i>Ethanol is considered broadly toxic and linked to birth defects following excessive oral ingestion</i>
	Isoamyl Laurate	An ester of isoamyl alcohol and lauric acid, Fragrance Ingredient; Skin-Conditioning Agent, Emollient; <i>Suspected to be an environmental toxin</i>
	Cetearyl Alcohol	Mixture of cetyl and stearyl alcohols that can come from vegetable or synthetic sources, Emulsion Stabilizer, Surfactant, Viscosity Increasing Agent
	Glyceryl Stearate Citrate	Citric acid ester of Glyceryl Stearate, Skin-Conditioning Agent
	Distarch Phosphate	Product formed by the cross-linking of starch with sodiummetaphosphate, Anticaking Agent; Binder
	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	A polymer of acrylic acid and related chemicals, Emulsion Stabilizer; Viscosity Increasing Agent
	Alpha-Methyl Ionone	Fragrance ingredient, naturally or synthetically produced scent chemical, <i>Recommended restricted in cosmetics, Possible human immune system toxicant or allergen, banned or restricted fragrance, Suspected to be an environmental toxin</i>
	Ascorbyl Palmitate	Ascorbic Acid (Vitamin C) and palmitic acid, a naturally occurring fatty acid; Antioxidant; Fragrance Ingredient; <i>Suspected to be an environmental toxin</i>
	Ascorbyl Tetraisopalmitate	Tetraester of Ascorbic Acid (q.v.) and isopalmitic acid, Antioxidant; Skin-Conditioning Agent
	Benzyl Alcohol	Synthetically manufactured; solvent, preservative; <i>associated with contact allergy, immunotoxicity, classified as expected to be toxic or harmful.</i>
	Benzyl Benzoate	Solvent and preservative; Fragrance Ingredient; Solvent; Antimicrobial, <i>associated with allergies and contact dermatitis, Endocrine disruption</i>
	Benzyl Salicylate	Esther of benzyl alcohol and salicylic acid; UV light absorbent; <i>associated with allergies and contact dermatitis, endocrine disruption</i>
	Butylphenyl Methylpropional	Synthetic scent ingredient; associated with allergies and contact dermatitis; <i>Persistence and bioaccumulation; Organ system toxicity (non-reproductive); Endocrine disruption</i>
	Caprylyl Glycol	Skin conditioning agent; has some antimicrobial activity
	Carbomer	Large polymeric chemical composed of acrylic acid monomers. Emulsion Stabilizer.
	Glyceryl Caprylate	Monoester of glycerin and caprylic acid; Skin-Conditioning Agent; <i>Enhanced skin absorption</i>
	Glyceryl Stearate	Composed of naturally occurring lipid ingredients glycerol and stearic acid; fragrance ingredient, skin-conditioning agent, surfactant; <i>suspected to be an environmental toxin</i>
	Hexyl Cinnamal	A naturally and synthetically occurring scent ingredient, <i>associated with allergic reactions</i>
	Hydrolyzed Sodium Hyaluronate	The hydrolysate of Sodium Hyaluronate derived by acid, enzyme or other method of hydrolysis; Skin-conditioning agent

Hydroxyisohexyl 3-Cyclohexene Carboxaldehyde	Perfuming, masking agent, <i>Restricted in cosmetics</i>
Phenoxyethanol	Preservative used in cosmetics and personal care products, Irritation (skin, eyes, or lungs), Occupational hazards; Organ system toxicity (non-reproductive).
Sodium Hydroxide	Highly caustic and reactive inorganic base; Denaturant; pH Adjuster, Organ system toxicity (non-reproductive); Irritation (skin, eyes, or lungs), Occupational hazards
Tetrahydrodiferuloylmethane	Antioxidant
Tetrasodium Glutamate Diacetate	Chelating Agent
Tocopherol	Naturally occurring chemical compounds related to Vitamin E; antioxidant; skin-conditioning agent; <i>tumor formation at high doses</i>
Tocopheryl Acetate.	A chemical compound that consists of acetic acid and tocopherol (vitamin E), Antioxidant; Skin-Conditioning Agent, Human skin toxicant or allergen - strong evidence, One or more animal studies show tumor formation at high doses.

Tab.5 The analysis of ingredients list in the skin care label 5.

Origin	Ingredient	Properties
Natural 64.3%	Andiroba Oil (Carapa Guianensis)	Denaturant; Skin-Conditioning Agent
	Coconut Oil (Cocos Nucifera)	Fragrance Ingredient; Skin-Conditioning Agent
	Sesame Seed Oil (Sesamum Indicum)	Fragrance Ingredient; Skin-Conditioning Agent
	Self Heal Extract (Prunella Vulgaris)	Skin-Conditioning Agent
	Oat (Avena Sativa Glucan)	Skin-Conditioning Agent
	Cucumber Extract (Cucumis Sativus),	Skin-Conditioning Agent
	Geranium Oil (Pelargonium Graveolens)	Fragrance Ingredient
	Petitgrain Oil (Citrus Aurantium).	Fragrance Ingredient, <i>subject to restrictions</i>
Chemical 35.7%	Xanthan Gum	Polysaccharide, a sugar-based polymer produced by bacteria; viscosity agent
	Caprylic/Capric Triglycerides	A mixed diester of glycerin with caprylic, capric acids, skin conditioning
	Zinc Oxide	Zinc Oxide is an inorganic oxide used as a colorant and sunscreen agent; <i>Persistence and bioaccumulation; Organ system toxicity (non-reproductive); Ecotoxicology</i>
	Sodium Levulinate	The sodium salt of levulinic acid derived from corn, anti-microbial preservative
	Sodium Anisate	The sodium salt of anisic acid derived from fennel, anti-microbial preservative
	Glyceryl Behenate	Monoester of glycerin and behenic acid, Emollient; <i>Surfactant, Irritation (skin, eyes, or lungs); Enhanced skin absorption</i>

Tab.6 The analysis of ingredients list in the skin care label 6.

Origin	Ingredient	Properties
Organic 36.0	Epilobium fleischeri (Alpine willowherb) extract	Skin Conditioning Agent
	Galium aparine (Cleavers) extract	Skin Conditioning Agent
	Cymbopogon martinii (Palmarosa) herb oil	Skin Conditioning Agent
	Citrus limonum (Lemon) peel oil expressed	Fragrance Ingredient
	Citrus aurantium (Neroli) flower oil	Misunderstanding in case of this ingredient
	Melissa officinalis (Lemon balm) leaf oil	Fragrance Ingredient
	Melaleuca alternifolia (Tea tree) leaf oil	Fragrance Ingredient, Antimicrobial Agent
	Coriandrum sativum (Coriander) fruit oil	Fragrance Ingredient
	Glycerin	(Glycerol) vegetable origin – denaturant, humectant, skin-conditioning agent, skin protectant, viscosity decreasing agent.
Natural 34.8%	Boswellia carterii (Frankincense) oil	Fragrance Ingredient
	Canarium luzonicum (Elemi) gum oil	Fragrance Ingredient

	Xanthan gum	Polysaccharide, a sugar-based polymer produced by bacteria; viscosity agent
	Citral	Naturally and synthetically manufactured; <i>associated with allergies and contact dermatitis</i>
	Citronellol,	Scent ingredient; moderate <i>hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
	Geraniol,	Naturally occurring scent ingredient found in various essential oils such as rose oil and citronella oil, fragrance subject to restrictions: safe only if satisfies manufacturing specifications or purity limits, according to industry safety panel (International Fragrance Association), possible human immune system toxicant or allergen, suspected to be an environmental toxin.
	Farnesol,	Fragrance ingredient, Soothing agent, associated with allergies and contact dermatitis.
	Limonene,	Scent ingredient; moderate <i>hazard - upon storage and exposure to sunlight and air degrades to various oxidation products which act as skin and respiratory irritants and sensitizers, irritate skin, eyes or lungs, possible human immune system toxicant or allergen.</i>
	Linalool.	Scent ingredient; moderate <i>hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
Chemical 29.2%	Cetyl alcohol	organic alcohol; surfactant, emulsion stabilizer, viscosity increasing agent; <i>organ system toxicity (non-reproductive), suspected to be an environmental toxin</i>
	Sucrose stearate	Monoester of stearic acid and Sucrose, Skin-Conditioning Agent, Surfactant
	Cetearyl olivate	Cetearyl alcohol and fatty acids derived from olive oil; skin-conditioning agent
	Sorbitan olivate	Surfactant based on olive oil and sorbitol.
	Potassium sorbate	Preservative; <i>Organ system toxicity (non-reproductive)</i>
	Sodium hyaluronate	The sodium salt of hyaluronic acid, Skin-Conditioning Agent
	Levulinic acid	An organic acid, perfuming, Skin-Conditioning Agent

Tab.7 The analysis of ingredients list in the skin care label 7.

Origin	Ingredient	Properties
Natural	Calendula	Skin-Conditioning Agent
	Elder	Skin-Conditioning Agent
	Hollyhock	Skin-Conditioning Agent
	rose petals	Antibacterial, Skin-Conditioning Agent
	self heal	Skin-Conditioning Agent
	Chickweed	Skin regenerating agent
	Lavender	Fragrance Ingredient; Skin-Conditioning Agent
	Lanolin	Lanolin is a refined derivative of the fat-like sebaceous secretion of sheep, Emulsion Stabilizer; Skin protectant
	Beeswax	Binder, emulsion stabilizer, fragrance ingredient, skin-conditioning agent
Chemical	Colloidal silver & gold	Preservative
	Vitamin e	Naturally occurring chemical compounds related to Vitamin E; antioxidant; skin-conditioning agent; <i>tumor formation at high doses</i>

Tab.8 The analysis of ingredients list in the skin care label 8.

Origin	Ingredient	Properties
Organic 44.0%	Aloe Barbadensis juice	Aloe leaf juice - skin-conditioning agent
	Simmonsia chinensis	Jobba oil - skin-conditioning agent
	Olea europaea	Olive oil – skin-conditioning agent
	Cera alba	Binder, emulsion stabilizer, fragrance ingredient, skin-conditioning agent
	Butyrospermum Parkii Butter	Shea butter – skin-conditioning agent
	Theobroma cacao	Skin-conditioning agent
	Aqua rosa damascena	Fragrance Ingredient
Natural 50.0%	Persea gratissima	Avocado oil - skin-conditioning agent
	Lanolin	Lanolin is a refined derivative of the fat-like sebaceous secretion of sheep, Emulsion Stabilizer; Skin protectant
	Pink damascena	Fragrance Ingredients
	Citral	Synthetically manufactured; <i>associated with allergies and contact dermatitis</i>
	Citronellol	Scent ingredient; moderate <i>hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
	Eugenol	Naturally occurring scent chemical found in clove oil; <i>Has been associated with allergies and contact dermatitis.</i>
	Geraniol	Naturally occurring scent ingredient found in various essential oils such as rose oil and citronella oil, fragrance subject to restrictions: safe only if satisfies manufacturing specifications or purity limits, according to industry safety panel

		(International Fragrance Association), possible human immune system toxicant or allergen, suspected to be an environmental toxin.
	Linalool	Scent ingredient; moderate <i>hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
Chemical 6%	Sodium benzoate	Preservative, Limited evidence of sense organ toxicity

Tab.9 The analysis of ingredients list in the skin care label 9.

Origin	Ingredient	Properties
Natural 54.5%	Aloe barbadensis leaf juice powder	Aloe leaf juice powder - skin-conditioning agent
	Rhatany Root Extract	Sun Screening Agent
	Green Tea	Antioxidant
	Rice Bran Oil	Skin-Conditioning Agent
	Sesame Seed Oil	Skin-Conditioning Agent
	Wild Pansy Extract	Emolient, Skin Protecting Agent
	Comfrey Root	Skin-Healing Agent
	Grape Seed Extract	Antimicrobial Agent; Antioxidant, Sun Screening Agent
	Alpha Bisabolol	Scent ingredient naturally occurring in camomile; Enhanced skin absorption
	Allantoin	naturally occurring nitrogenous compound used as a skin conditioning agent
	Plantain	Hudration Agent
	Licorice Root Extract	Skin-Conditioning Agent
Chemical 45.5%	Caprylic/Capric Triglycerides	A mixed diester of glycerin with caprylic, capric acids, skin conditioning
	Vitamin E	Naturally occurring chemical compound; antioxidant; skin-conditioning agent; <i>tumor formation at high doses</i>
	Linoleate	Fragrance Ingredient
	Micronized Titanium Dioxide	Sunscreen agent, in vitro tests on mammalian cells show positive mutation results, Classified as expected to be toxic or harmful
	Dexapanthenol	Healing Agent, Humectant, Skin-Conditioning Agent
	Hyaluronic Acid	Skin-Conditioning Agent
	Sodium PCA	Humectant; Skin-Conditioning Agent
	Beta Glucan	Bulking Agent; Skin-Conditioning Agent
	Pycnogenol	Emolient
	Riboflavin	Skin-Conditioning Agent

Tab.10 The analysis of ingredients list in the skin care label 10.

Origin	Ingredient	Properties
Natural 34.4%	Butyrospermum parkii (Shea Butter)	Shea butter – skin-conditioning agent
	Mica	A type of highly brittle silicate minerals with diverse chemical composition; typically used as a colorant, Persistent, bioaccumulative in wildlife and humans
	Cera Alba (Beeswax)	Binder, emulsion stabilizer, fragrance ingredient, skin-conditioning
	Glycerin	Glycerol) vegetable origin – denaturant, humectant, skin-conditioning agent, skin protectant, viscosity decreasing agent.
	Citronellol	Scent ingredient; moderate <i>hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
	Linalool	Scent ingredient; moderate <i>hazard, subject to restrictions, possible human immune system toxicant or allergen.</i>
	Geraniol	Naturally occurring scent ingredient found in various essential oils such as rose oil and citronella oil, <i>fragrance subject to restrictions: safe only if satisfies manufacturing specifications or purity limits, according to industry safety panel (International Fragrance Association), possible human immune system toxicant or allergen, suspected to be an environmental toxin.</i>
	Limonene	Scent ingredient; moderate <i>hazard - upon storage and exposure to sunlight and air degrades to various oxidation products which act as skin and respiratory</i>

		<i>irritants and sensitizers, irritate skin, eyes or lungs, possible human immune system toxicant or allergen.</i>
	Citral	Naturally occurring scent ingredient; <i>manufactured synthetically on a large scale; associated with allergies and contact dermatitis</i>
	Eugenol	Naturally occurring scent chemical found in clove oil; <i>Has been associated with allergies and contact dermatitis.</i>
	Farnesol	Fragrance ingredient, Soothing agent, associated with allergies and contact dermatitis
Chemical 65.5%	Isopropyl Palmitate	An ester of isopropyl alcohol and palmitic acid, Binder; Fragrance Ingredient; Skin-Conditioning Agent,
	Sorbitol	type of sugar alcohol used as a thickener and a skin conditioning agent,
	Triethanolamine	strongly alkaline substance used as surfactant and pH adjusting chemical, Human skin toxicant or allergen - strong evidence
	Caprylic/Capric Triglyceride	A mixed diester of glycerin with caprylic, capric acids, skin conditioning
	Glyceryl Stearate	Composed of naturally occurring lipid ingredients glycerol and stearic acid; fragrance ingredient, skin-conditioning agent, surfactant; <i>suspected to be an environmental toxin</i>
	PEG-100 Stearate	Polyethylene glycol ester of stearic acid, Surfactant
	Carbomer	Large polymeric chemical composed of acrylic acid monomers, Emulsion Stabilizer; Viscosity Increasing Agent
	Phenoxyethanol	Preservative used in cosmetics and personal care products, Irritation (skin, eyes, or lungs), Occupational hazards; Organ system toxicity (non-reproductive).
	Steareth-2	Synthetic surfactant composed of polyethylene glycol polymer and stearyl alcohol, Organ system toxicity (non-reproductive)
	Steareth-21	Synthetic surfactant composed of polyethylene glycol polymer and stearyl alcohol, Organ system toxicity (non-reproductive)
	Tocopheryl Acetate	Chemical compound that consists of acetic acid and tocopherol, Human skin toxicant or allergen, One or more animal studies show tumor formation at high doses
	Methylparaben	The paraben family of preservatives; parabens mimic estrogen and can act as potential hormone (endocrine) system disruptors, restricted in cosmetics
	Disodium EDTA	Chelating agent, Enhanced skin absorption
	Butylparaben	The paraben family of preservatives; parabens mimic estrogen and can act as potential hormone (endocrine) system disruptors, restricted in cosmetics
	Ethylparaben	The paraben family of preservatives; parabens mimic estrogen and can act as potential hormone (endocrine) system disruptors, restricted in cosmetics
	Isobutylparaben	The paraben family of preservatives; parabens mimic estrogen and can act as potential hormone (endocrine) system disruptors, restricted in cosmetics
	Propylparaben	The paraben family of preservatives; parabens mimic estrogen and can act as potential hormone (endocrine) system disruptors, restricted in cosmetics
	Benzyl Alcohol	Synthetically manufactured; solvent, preservative; <i>associated with contact allergy, immunotoxicity, classified as expected to be toxic or harmful.</i>
	CI 77891	An inorganic compound used in a range of body care products such as sunscreens and makeup. It appears to have low skin penetration but inhalation is a concern.
	CI 14700	Monoazo colorant, Banned or found unsafe for use in cosmetics
	Alpha-Isomethyl Ionone	Fragrance Ingredient, <i>Restricted for use in cosmetics</i>

Appendix 3. The rating average is calculated as follows, where (What is the Rating Average and how is it calculated, 2014) :

$$\frac{X_1W_1 + X_2W_2 + X_3W_3 \dots X_nW_n}{\text{Total}}$$

w = weight of answer choice

x = response count for answer choice

Резюме

В последние годы производство натуральной и органической косметики, и реализация в спа и розничных магазинах быстро растет и процветает, и многие производители начинают использовать органические и / или натуральные ингредиенты в своей продукции. Производители косметической продукции по уходу за кожей могут вводить в заблуждение рекламными утверждениями и использовать слова, такие как "содержит натуральные и / или органические ингредиенты", "органический и натуральный ", "травяной", "без химических добавок и консервантов", поэтому потребители должны быть внимательны, чтобы не упустить наличие химических ингредиентов в косметике. Лучшая защита от вредной косметики для ухода за кожей является проявление внимания к этикетке и сертификации продукции.

Целью данной дипломной работы является исследование, если этикетки спа косметики по уходу за кожей непонятны для среднего потребителя и исход диссертации возглавляет цель дать рекомендации для производителей спа косметики по уходу за кожей, как улучшить этикетки спа косметики по уходу за кожей, что они были понятны и, следовательно, могли привести к положительному решению потребителя о покупке спа косметики по уходу за кожей.

Для достижения этой цели, автор предприняла 3-фазное сравнительное исследование 10 натуральных и / или органических продуктов по уходу за кожей, используемые или продаваемые в натуральных и / или органических спа. Основное внимание научного исследования было сконцентрировано на:

- маркетинговых сообщений от компаний или производителей натуральных и органических продуктов по уходу за кожей
- исследование этикеток спа органической и натуральной продукции по уходу за кожей и по их ингредиентов,
- анкетирование потребителя, чтобы понять их отношение и знания о маркировке, сертификации и ингредиентов спа косметики.

Интернет, отраслевая пресса и медицинские научные исследования было важным дополнительным источником знаний о компонентах и сертификации в мировой спа косметической индустрии по уходу за кожей.

Причина выбора цели этой диссертации кроется в велнесс- и спа-индустрии, потому что она рассматривается как часть нашей жизни и общего оздоровительного образа жизни из-за релаксации и снятия стресса. Велнесс делает упор на минимизации эффекта трех измерений стресса, где один из них является химический стресс, который вызван не только внутренней токсичностью тела, но внешним химическим воздействием.

Когда дело доходит до спа-индустрии, часто при посещении спа-центра, производится покупка спа продукции по уходу за кожей. В рамках данного исследования, 28,9 процента из 180 опрошенных приобрели спа продукцию по уходу за кожей в последние шесть месяцев, и в 50 процентах покупкой была натуральная и / или органическая продукция по уходу за кожей. В последние годы во всем мире появилась тенденция увеличения продаж натуральной и органической продукции по уходу за кожей в розничных магазинах и спа.

Согласно выводам, автор опровергает гипотезу данного исследования, что этикетки спа косметики по уходу за кожей непонятны для среднего потребителя. Однако этикетки спа косметики по уходу за кожей были поняты и правильно оценены в отношении натуральной, органической или химической природы продукта в среднем в 88,3 процентах случаев, необходимо признать, что в примерно в среднем 11,7 процента респондентов затруднялись оценить такие этикетки, что свидетельствует о том, что некоторые потребители до сих пор путаются в информации, предоставленной на этикетке.

Главной целью этого исследования служит совет для маркетологов спа косметики по уходу за кожей. Некоторые производители разрабатывают новые этикетки, чтобы отличаться от других брендов на косметическом рынке, а также увеличить восприятие и понимание этикеткой производимой спа косметики по уходу за кожей для среднего потребителя, и увеличению решений в пользу покупки косметического средства, и в следствии увеличении продаж в спа и спа-магазинах. Как показало

исследование, самые понятные этикетки продукции для ухода за кожей были те, где ингредиенты были перечислены на английском языке с указанием в скобках латинского названия растений, логотипов сертификации, и разделенным перечнем основных ингредиентов и эфирных масел. И дополнительной корректировкой, по мнению респондентов, разделение и указание на наличие натурального или органического происхождения.

К сожалению, в реальной среде покупки, потребители имеют ограниченное время, чтобы принять решение о покупке, обратить внимание на этикетку и прочитав всю информацию, в отличие от отсутствия ограничения времени, отведенного на вопросник диссертации, по этому понятная и точная информация на этикетке позитивно повлияет на принятие решения о покупке косметического средства.

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